## The Far Eastern Review

ENGINEERING

FINANCE

-- COMMERCE

A Monthly Review of Far Eastern Trade, Finance and Engineering, Dedicated to the Industrial Development and Advancement of Trade in Far Eastern Countries.

### PUBLISHED AT 5 JINKEE ROAD

George Bronson Rea, Publisher

SHANGHAI, CHINA. Patrick Gallagher, Editor

HEAD OFFICE. - 5 Jinkee Road, Shanghai; Telegraphie Address: Farview.

JAPAN OFFICE.—Care of Messrs. Sale and Frazar, Tokyo. MANILA.—Fleming, Percy Smith and Seth, Roxas Building, Room 217-218, Escolta, Binondo, P.O. Box 214.

NEW YORK OFFICE. -- 50 Church Street, New York.

REPRESENTATIVES IN GREAT BRITAIN AND CONTINENT. - Sole Advertising Agents: Walter Judd, Ltd., 97 Gresham Street, Bank, London, E.C.

In China, \$9 Mex. per year, 80 cents Mex. per copy. In all other countries in the Postal Union, \$8 Mex. per year plus \$2 Mex. per year for postage.

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SEPTEMBER, 1920

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\*Illustrated with Maps or Photographs.

Entered at the U.S. Postal Agency, Shanghai, China, as second-class matter. Registered at the Chinese Post Office as a Newspaper. Entered at the Japanese Post Office as a Newspaper.

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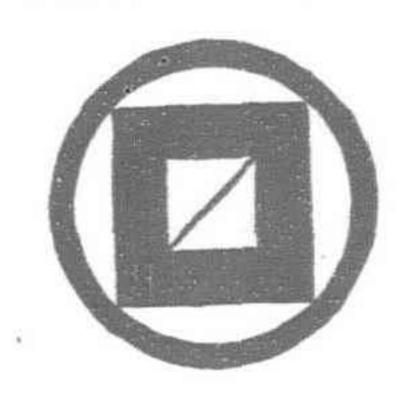
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# AR EASTERN REVIEW

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Oil and Ships to Foster Far Eastern Trade: Maps and Complete Data Showing How America is Girding the World with Fuel Stations—Pictures, Plans and Descriptions of the New American Pacific Passenger and Freight Carriers

The World-wide Contest for Oil and the Quest for Oil that Failed in China

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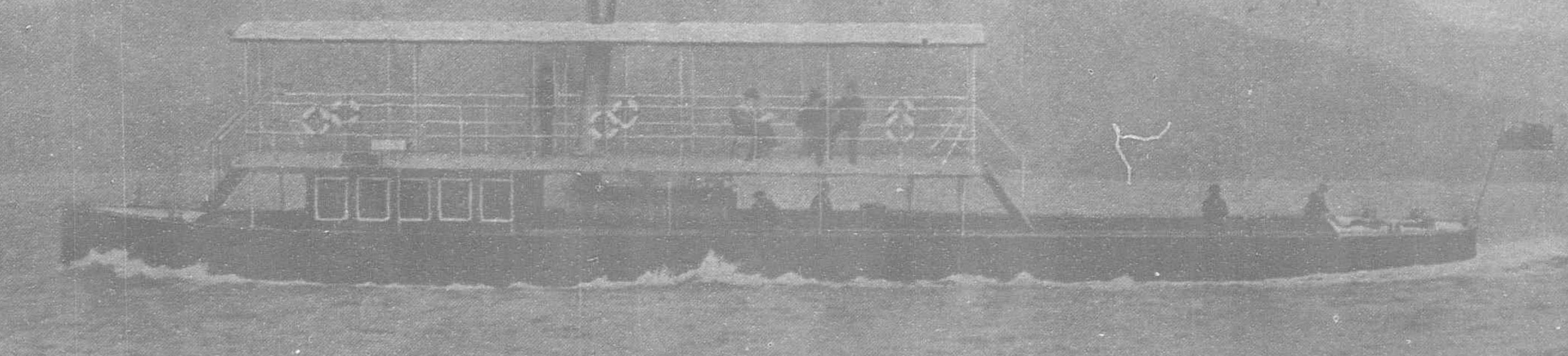
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# The Far Eastern Review

ENGINEERING

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VOL. XVI

SHANGHAI, SEPTEMBER, 1920

No. 9

### Peace Through Prescience

II.—America and Japan are Now Partners

By George Bronson Rea

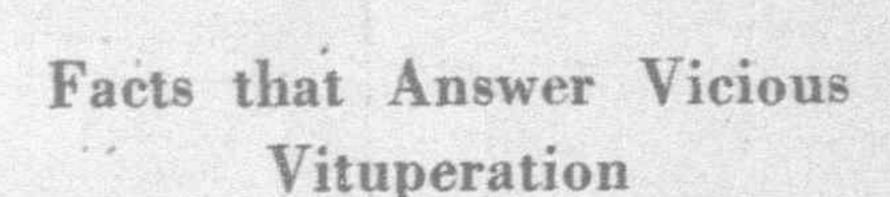
EARLY-BOUGHT experience should teach us that it is difficult, if not impossible to formulate and carry forward a fixed national policy for the advancement of trade and the protection of foreign investments under a perversion of our system of government that causes our foreign

policy to change every four years in accordance with some plank in a political platform or at the whim or will of an opinionated

president or secretary of state. Thousands of loyal Americans whose lives have been imperilled and properties destroyed in Mexico, and who have been informed that "the American government has other more important things to attend to than bothering about the affairs of its citizens who could not make a living in their own country," have most emphatic and unprintable views on this question. Those who have listened to the candid statements of Middle Western senators to the effect that "they would like to see every foreign security held in the country thrown into a bonfire," will realize how difficult it would be to change a prevailing sentiment. Turning from Mexico to China, we find that other enterprising and equally loyal Americans, deluded into believing that the "Open Door" doctrine would be upheld as a cardinal feature of our diplomacy, upon exercising their right to conduct business direct with the Chinese government, have also learned that the state department "could not

support such dangerous activities." Time and again, the question has been squarely raised and, as often, the state department has found some way in which to wriggle out of its responsibilities.

This finally resulted in turning the "Open Door" into an international jest, a diplomatic fairy story perpetuated by American writers and statesmen for the benefit of gullible Young China and inexperienced American merchants, manufacturers and bankers. Until such time as all agreements and understandings eircumscribing China's sovereign rights are abrogated, the "Open Door" remains a myth, the Consortium to the contrary notwithstanding. That is not a matter of opinion. It is a matter of fact.



This is undoubtedly by far the best inside story of "The Open Door" ever printed. It tells the facts briefly and clearly, and without bias. Mr. Rea's first article of this series so riddled the "Paper Dragon" contraptions of the Paid Pied Pipers who lick the heels of the mandarins, fawn at their filthy feet and play their malign music for them, these incubated anomalies sought to screen their deceptions by a cheap resort to vicious vituperation. THE FAR EASTERN REVIEW has neither space, time nor thought for mean personalities. It devotes all three to the presentation of Far Eastern facts. - Editor, F.E.R.

OTHER DESIGNATION OF THE PROPERTY OF THE PROPE

Americans are urged to invest in China, open offices in China, and by sheer weight of numbers to overcome foreign competition (especially that of Japan) and "capture the market." The assumption behind this campaign is that the American government has determined to safeguard the interests of its citizens in foreign fields and that, in China, it will go to extremes to maintain the "Open Door." Is this belief justified? Will the American government

guarantee protection to its capital in · China when it absolutely refuses to accept responsibility in Mexico? Will it send an army across the Pacific when it will not police its own backyard? The answer seems to be obvious. It will not. The same reasons, the same reluctance to intervene in the internal affairs of another nation, will prevail in regard to China. How then can the widelyadvertised investment field in China be made safe and attractive for American capital to enter in large amounts? Again, the answer seems obvious. If the American government will not accept responsibility for the protection of American investments abroad, then this essential guarantee can be attained only by dividing the responsibility through co-operation with another nation or nations. It is plainly evident that the American government has at last adopted this doctrine as the only honorable and peaceful solution of a most difficult problem.

#### The Record of Wobble and Wilt

If we run back over the events of the past twenty years in China we will see that American policy towards that country has wobbled between attempts to give effect to its conception of

the "Open Door" and break down the European and Japanese spheres of interest through independent financial operations; and, when defeated, it has swung to the other extreme and insisted upon neutralization, or to use the phraseology of to-day, "international cooperation." Every time American diplomacy tried to pry the door open, the beneficiaries of the "spheres" policy did everything possible to keep it shut. Slowly, but surely, the door was closed to American railway and loan activities, until it dawned that our tradiupon us



Imperial Palace. Tokyo

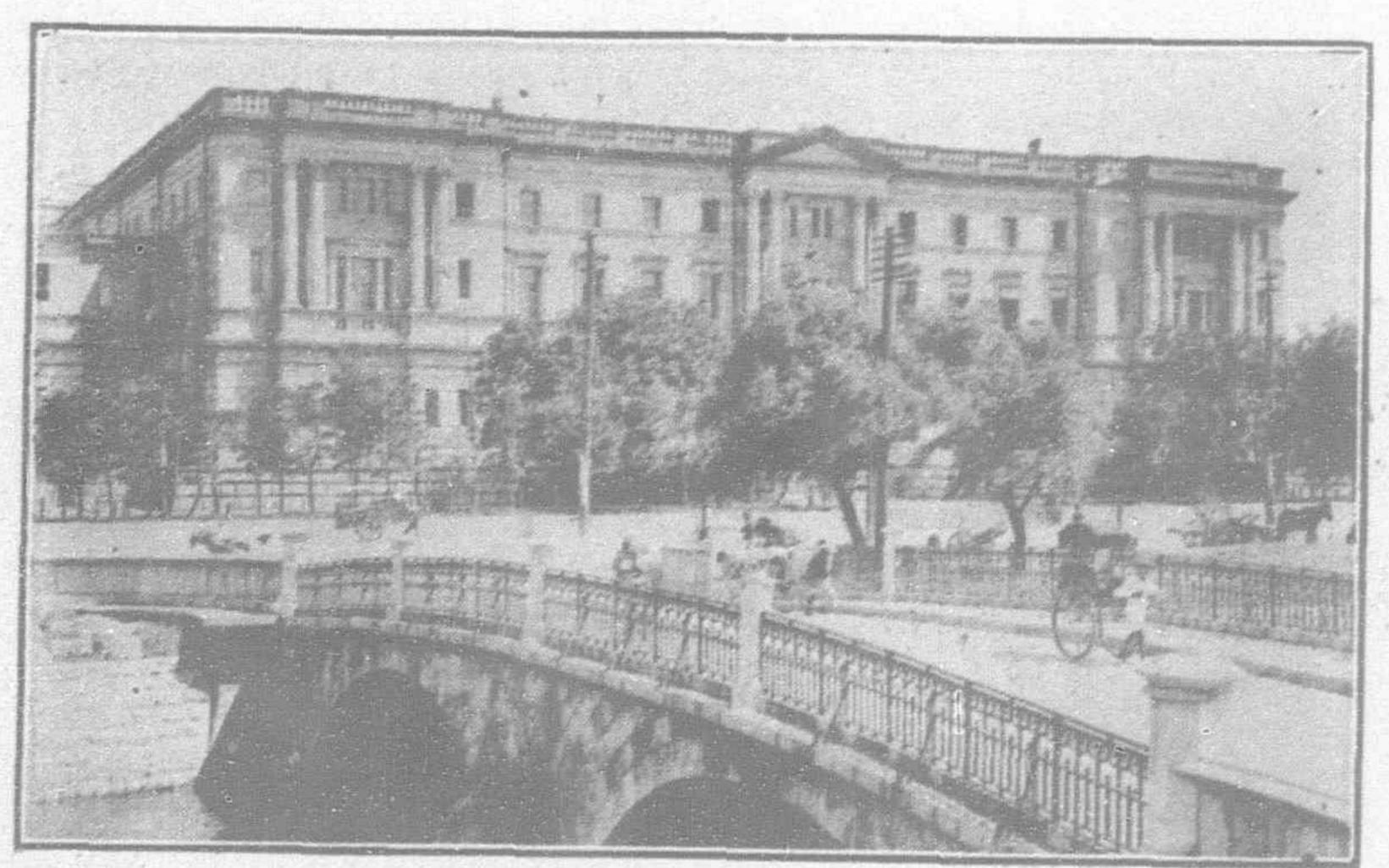


New York's Famous Financial and Foreign Trade, "Downtown" Section, now in Active Partnership with Japan

tional policy could not be upheld without the application of force. This we were not willing to apply. The organization of the new Consortium would indicate that this national reluctance is to be rectified through co-operative responsibility, and, as the doctrine has the endorsement of the leading American bankers, it is reasonably certain that in time it will be adopted by future administrations as the basis of our Far Eastern policy.

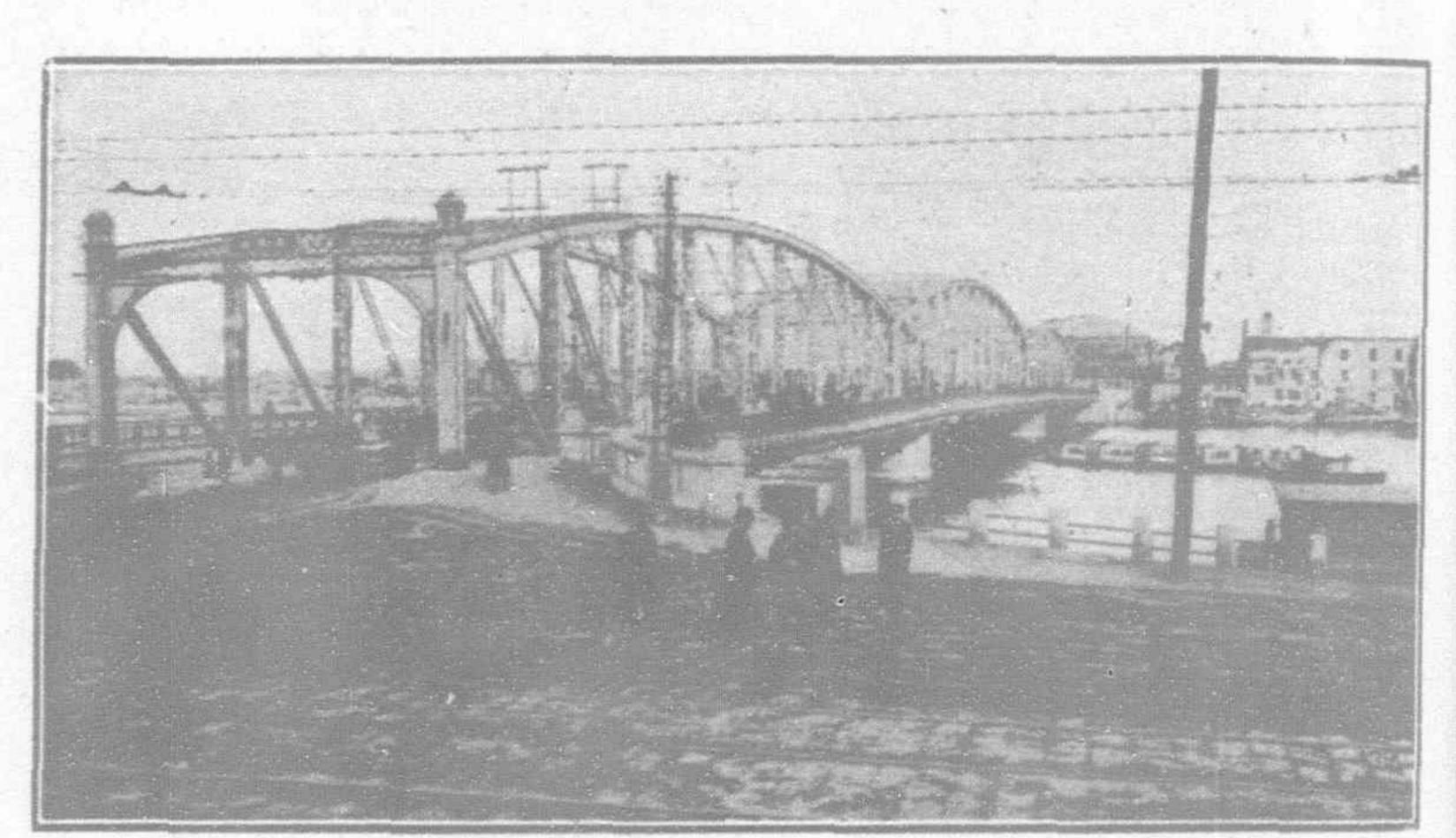
So much buncombe has been written about the "Open Door" that it will be interesting to follow the vagaries of a policy originating with a declaration for independent commercial and financial action and terminating with a determined stand for international co-operation. A large library could be filled with fat volumes about the misconceptions surrounding this policy, but for the purpose of this article we will point out that American capital obtained its first foothold in China in 1898 with the concession for the Canton-Hankow way. Six months later, the British and Chinese Corporation, with the approval of the British government, offered to share its valuable railway concessions with the America-China Development Company in exchange for an equal interest in the Canton-Hankow line. Had this offer been accepted in the spirit in which it was made, American and British capital co-operating together would have found safe and profitable investment and materially contributed to the development of the richest portions of China and changed for the better the current of subsequent events.

In 1905, the same British corporation, with the knowledge and approval of its government, again invited the American bankers to enter into an international combination for the pooling of all competitive rights to the projected Hankow-Szechuan line; and, as evidence of good faith, offered to include



The Nippon Bank, Tokyo

in the deal the exclusive British Pukow-Sinyang concession. Again, the Americans rejected the overtures, which led the British to assume that we surrendered our half rights in the financing of the line. The international combination with France and Belgium was negotiated by the British, with America on the outside. Four years later, in 1909, the powers, now joined by Germany, were about to sign the Hukuang loan agreement which took over the rights to the line into Szechuan. In the meantime, the American group had been organized and entered the field. The principle of co-operation, rejected in 1899 and 1905, was now insisted upon as an American right and the entire weight of our diplomacy was concentrated upon forcing admission into the new international combination. it necessitated a peaceful ultimatum from President Taft to the Prince Regent to secure participation in the loan. The success scored by Mr. Taft was heralded as a great diplomatic victory, the forerunner to international cooperation on a larger scale, and, according to one enthusiastic writer, as the basis for the League of Nations itself. The inside story of the negotiations, however, reveal that this eleventh hour acceptance of the principle of co-operation was the only way open to Americans for participation of any sort. The maintenance of the "Open Door" doctrine cut a very insignificant figure in the controversy. An informal note from Prince Ching to Minister Conger promising American and British capital the right to finance the line if foreign capital was ever necessary to build it, was

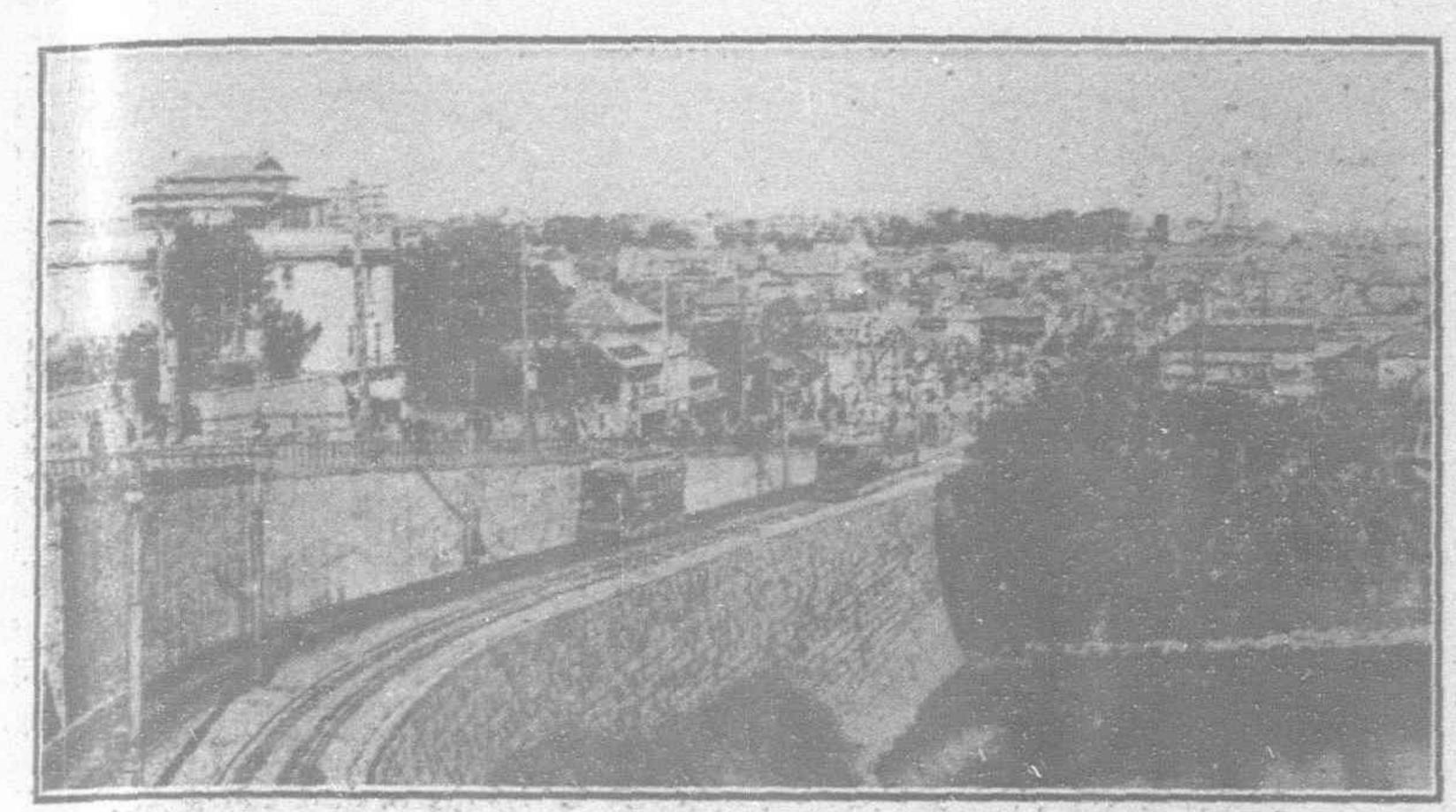


Ryogokubashi Bridge, Tokyo

our one strong card for admission into the pool. We created a precedent for the recognition of informal promises and notes conceding special rights to China's railways, a precedent that has since been followed by other nations; but now that the shee is on the other foot, we insist that such commitments are invalid and a violation of the "Open Door."

#### The Manchurian Muddle

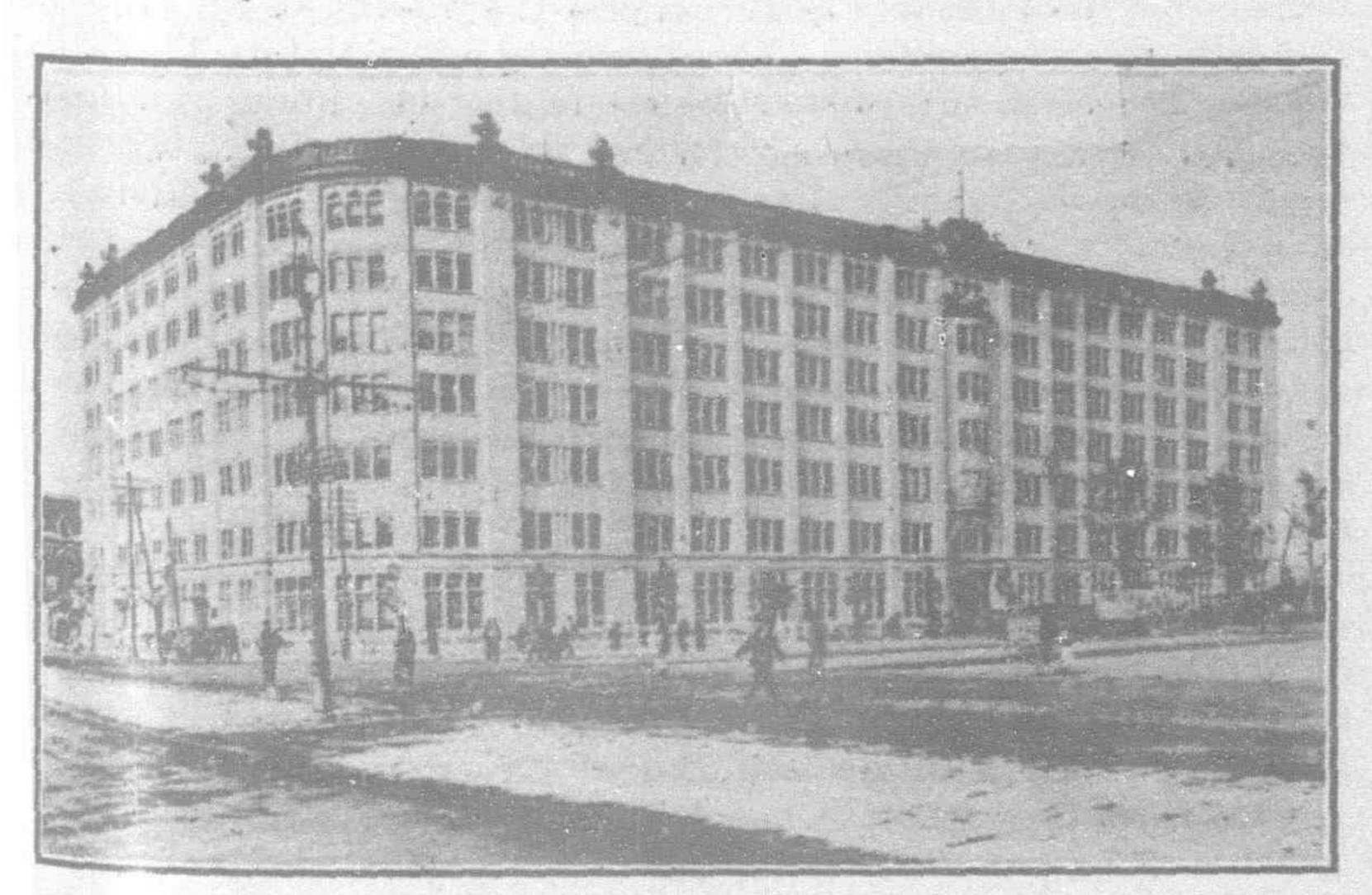
At this time, Americans also entered into an agreement for the establishment of a Manchurian Bank and the construction of a railway in Northern Manchuria from Tsitsihar to Aigun. This railway was subsequently extended to include a line from Tsitsihar south to Chinchow and the contract divided with a British company for the purpose of enlisting the support of the British government to a scheme that Americans could not carry out alone against the opposition of Russia and Japan. When this concession was killed, Secretary Knox launched his famous neutralization plan for the Manchurian railways and urged the powers, if this could not be accepted, that they should, at least, combine to neutralize the Chinchow-Aigun line. It will be recalled that Japan offered to withdraw her protest, if she were allowed to participate with America and Britain, but this was refused In effect, Secretary Knox fell back upon the doctrine of international co-operation (with Japan on the outside) to save the shreds of the so-called "Open Door" policy. If Japan's proposttion had been accepted in 1910, and the southern section of the Chinchow-Aigun line had been constructed with Japanese participation, it would have effectively neutralized Inner Mongolia and avoided much subsequent hard feelings and antagonisms. line has just been pooled in the new Consortium. Ten years have



Brid's Eye View of the Business District of Kanda, Tokyo

been wasted in futile attempts to embarass Japan. We are just where we were when Japan originally offered to participate. Nothing more, nothing less.

Right on the heels of this incident, a preliminary loan agreement for \$50,000,000 was signed in Peking, on October 27, 1910, between representatives of the Chinese government and the American group: The proceeds of the loan were to be used for the reform of the currency. The Chinese very carefully explained that they desired the loan to be exclusively American and that the reforms be carried out under purely American supervision. The conditions were accepted and two days later, the agreement was ratified by imperial decree. The American group, satisfied that it could make little real progress working independently against the combined forces of the opposing groups, used this loan agreement to advance the idea of international co-operation, and thus brought about the formal organization of the first four-power group in Paris, on November 10, 1910. The currency loan agreement concealed a "nigger in the woodpile." Outwardly designed to stabilize and standardize the currency system, it was, in reality, another covert attempt to undermine the Japanese and Russian positions in Manchuria. The agreement provided that five-ninths of the proceeds were to be applied to China Proper and four-ninths to industrial development and administrative purposes in Manchuria. Americans made the mistake of believing that Britain and France would stand with them against the interests of their allies. Up to this time, Russia and Japan, as borrowing nations, had been excluded from these international financial combinations. This thinly-disguised stratagem to neutralize their acquired treaty rights in Manchuria aroused their intense opposition. Although unable to lend large sums to China, they demanded admittance into the international banking combination on political grounds. France and Britain consented to carry their allies, and the combination then became known as the Six-Power Group. This attempt to bring international pressure upon Russia and Japan resulted in a complete defeat for American diplomacy. They were admitted as full partners into a combination devised to crack the whip over them, reserving the



The Tokyo Kaijo Building, Tokyo

right to protect any loan whose expenditure in any way menaced their strategical or political position in Manchuria. Instead of upholding the "Open Door" doctrine, the incident solidified the special position of these powers in their respective spheres. It is well to recall in passing, that the currency loan remains, on paper, an intangible American right that could not be enforced without eliminating the provisions for the development of Manchuria. It cannot be carried out under the new Consortium, over the protest of Japan.

### The Wilson Wriggle of 1913

We now come to the reorganization loan of 1913 and President Wilson's dramatic refusal of further official support to the American group. He declared that the terms of the loan struck at the very roots of China's independence, and a monopoly of official support to the group, was, in itself most unAmerican in spirit. The American group withdrew from the field; and, in doing so, destroyed the plans of Dr. Sun Yat-sen for the neutralization of China's new railways through international financial co-operation. The American group positively refused to consider any further business in China until the President's policy underwent a change, and rejected a contract for the Southwestern railway system from the delegate of Dr. Sun. At that time, this system was absolutely free from international political complications and



Manchurian Carpenters

would have provided American capital an excellent opportunity to operate independently in China on an equal footing with other powers. The inference may be drawn from this incident that the group refused to operate independently in any important Chinese undertaking, without the positive assurance of permanent diplomatic support. This, experience had proved, could not be expected under the present administration.

It is difficult to follow or explain the motives which actuated American policy in China from 1913 to date. The group was out and the field ostensibly open. The state department declared that it would support independent enterprise, but nothing materialized. It was impossible to interest American capital in Chinese development in 1913. In the following year, the Chinese government took the initiative in bringing about the neutralization of its railways and authorized the formation of an international company for the financing and construction of an approved system of 10,000 miles of new lines. Although the negotiations were a complete success and American capitalists, engineers and manufacturers participated equally with those of Great Britain, France and Germany, the state department refused to support the American participant on the grounds that the scheme constituted a monopoly of railway construction in China and was therefore a violation of treaty provisions which prohibited the creation of monopolies. China was denied the exercise of her sovereign right to organize on her own initiative a company for the development of her territory. This unwarranted interference with the affairs of China constituted one of the greatest abuses of despotic power indulged by the present autocratic Washington régime. It struck at the very roots of China's independence; was as arbitrary as any action of Russia, denying to China exercise of her right to construct railways in her own territories menaced by Russia's strategical position. It justified the charge that President Wilson's loudly-advertised concern for the rights of smaller and weaker nations is after all cheap political clap-trap.

When pressed for a reversal of this unfriendly ruling, the officials of the state department declared "it was not so much the question of a monopoly that worried them, as it was the idea of American co-operation with other foreign interests in the development of China's public utilities that might give rise to complications that the government was most anxious to avoid." The department, however, "would welcome independent activity in China and was prepared vigorously to support any honorable and equitable contract entered into between the Chinese government and an American citizen." Here we find that international co-operation was rejected for a return to the myth of the "Open Door" and independent American operations in China.

Pursuant to this change of front, U.S. Minister Reinsch induced the independent Siems-Carey Company to enter the Chinese field and accept a most liberal railway and canal improvement contract, fully believing that he was living up to the policy of the administration and would receive support. Here again we witnessed another acrobatic flip-flop from the double-jointed department, for, when the issues raised by the protests against the railway contract had to be faced on the eve of a presidential election, it resorted to subterfuge and prevarication to escape responsibility. The state department employed the same diplomatic stratagem as Japan did in the matter of group five of the twenty-one demands and publicly disavowed official' knowledge of the existence of the contract. The Siems-Carey Company was repudiated as having operated in a private capacity without consultation with the department, thus by inference accusing Minister Reinsch of having concealed vital facts from the government. An unwillingness on the part of those conversant with the facts to complicate the situation and embarass the administration in the middle of the world war saved the department from criticism at that time. There is no escape from the facts of this situation. Either the department stands convicted of downright prevari-



A Mancharian Beauty



A Manchurian Idea of Happiness

cation or the American Minister at Peking was guilty of neglect of duty. As he was not reprimanded or recalled, the facts would tend to strengthen the case against the department. The incident, however, emphasized that there was no place in China where American capital could operate independently to construct railways without conflicting with the special rights of other powers. The door was shut, barred, bolted and buttressed.

### A Successful Japanese-American Partnership

Bereft of official support, the Siems-Cary Company was left to its own devices to save its contracts. Japan protested the Grand Canal contract, and, as in the former case of the Chinchow-Aigun railway, offered co-operation as a solution. This time it was accepted by the American corporation as a purely business proposition, in line with previous diplomatic efforts to accomplish through co-operation what could not be carried out independently. The state department then refused to accept further responsibility and the deal therefore stands outside the pale of American diplomatic support. On the other hand, the investors are safeguarded by the guarantee of Japan, and the officials of the American company declare that it is the most ideal business arrangement ever entered into with foreign interests. Their Japanese partners have not once exercised their right to interfere in the work and have paid over their assessments of capital without asking for explanations or details of expenditures.

Unable to move in any direction against the stubborn opposition of the other powers, checked and blocked on all sides in the attempt to give effect to its conception of the "Open Door," and ignoring the just and legal footing of the International Finance and Construction Company organized in 1914, the American government again fell back upon the rejected doctrine of international co-operation and in August, 1918, invited the governments of Great Britain, France and Japan to organize another Consortium for the financing of China and the pooling of all railway and industrial concessions. This brings us up to date. The Consortium has been formed. It stands as the expression of a new American policy in China, acclaimed as a great diplomatic victory. Analysis, however, clearly discloses that it is a confession of defeat, of the complete breakdown of the "Open Door" policy originally designed to provide tree scope for independent national activity in the development of China. Despite its many faults, it has much to commend it. Not that it will bring about the millenium and open the door to unrestricted American activity in China (this can only come with the full recognition of China's sovereignty through the abrogation of the many treaties and understandings between the powers, concerning their preferential rights and privileges) but it will help to put China upon her feet, reorganize her government and develop certain much-needed railways. It is a machine in the making, rough and full of flaws. It may take much oiling and skilful direction to enable it to operate smoothly.

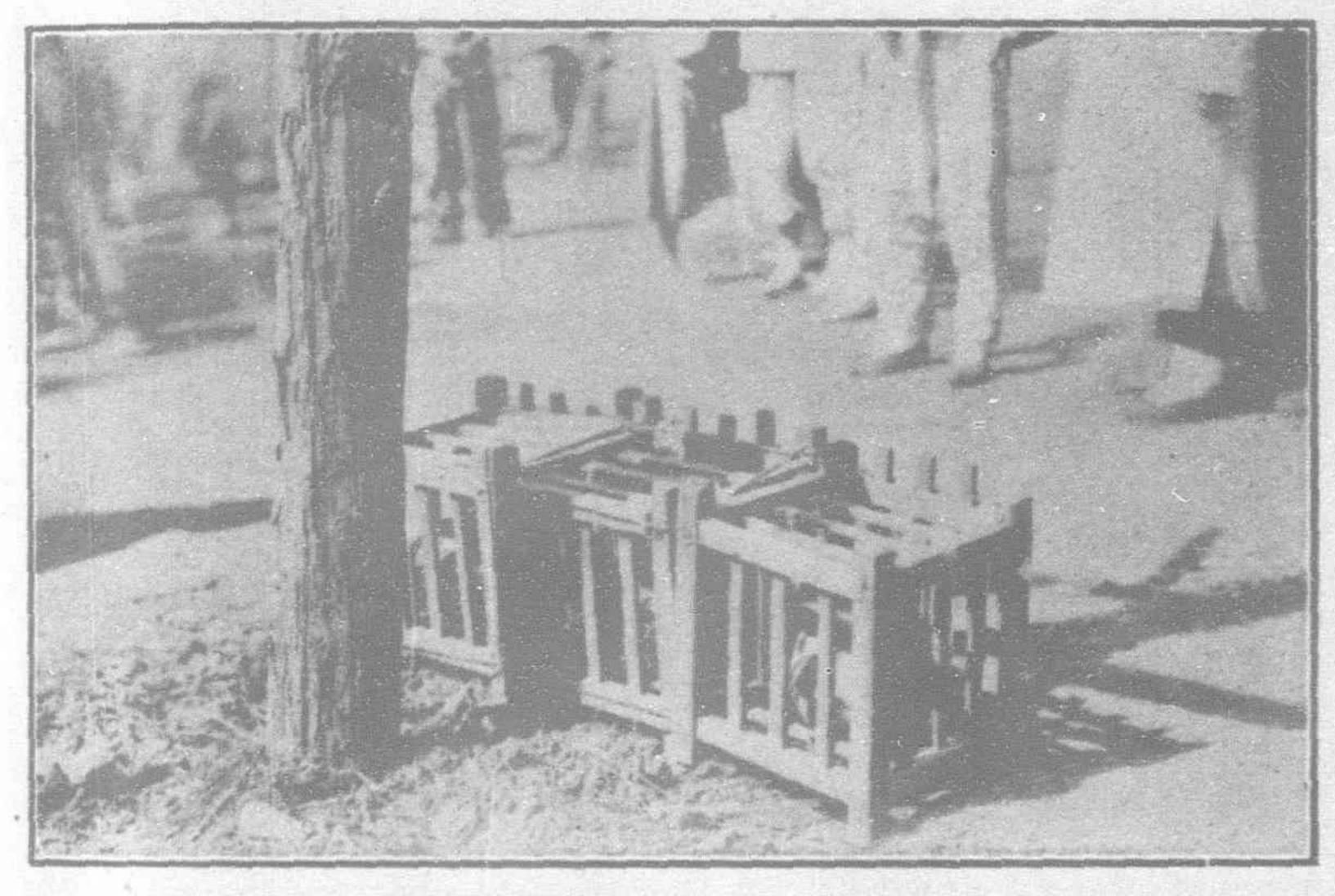
It is only fair to emphasize that in throwing overboard the traditional American policy of the "Open Door" for the doctrine of international co-operation, the administration had no

alternative. Until the American people wake up to the vital necessity of having a fixed foreign policy supported by public opinion and an army and navy of sufficient strength to enforce respect, it is futile to adhere to a doctrine opposed to the interests of the other great military and trading powers. Experience has taught our bankers that the state department is a fragile reed to lean upon in the event that their foreign investments require protection. Confronted with the situation in Mexico, they hesitate to embark upon any great enterprise in China unless there is some tangible guarantee that their investments will be safeguarded. It is for this reason that the Consortium, which divides this responsibility and assures the sale of Chinese securities to the public, has so far met with such cordial endorsement from our highest financial leaders.

Outwardly, the new Consortium stands for the co-operation of the Four Powers in the development of China, but the French and British participation will be carried for some years by the United States and Japan, the only two countries who for the present, can carry the financial load. The principle of international co-operation as applied in the new Consortium is therefore reduced to co-operation between America and Japan, with the diplomatic support and guarantee of Great Britain and France.

#### The Fundamental Truth

This important truth has been overlooked by those who are loudest in their denunciations of Japanese policy in China. They refuse to see that the old, worn-out policy of the "Open Door" has been swept into the dustbin, and that China's one hope of regeneration must come from foreign loans, which may be secured



Bandits' Heads Exposed in Manchuria.

only through the most harmonious and friendly understanding between the United States and Japan. Japan's policy in China may be open to criticism; she may have resorted to many questionable practices to advance her special interests, but the big, outstanding truth of the present situation is that the prosperity of every foreign trading concern in the country depends to a large extent upon the friendly co-operation of Japan with the United States in assisting the decrepit old state to stand once more upon her own feet. These truths may be unpalatable to many Americans and foreigners in China, but they stand and must be squarely faced. Every important interest in the United States recognizes the force of the facts. On this friendly co-operation depends the success of the Consortium and the ability of the American group to carry out its part of the bargain. The American bankers might advance a few small loans to China from their own surplus, but the real success of the Consortium must depend upon their final ability to market these bonds to the public. No investor, no matter how friendly inclined he may he towards China, will hazard his money in a country maintained in constant turmoil of internal strife; and whose publicists are directing their energies towards creating trouble between America and Japan. Japan and America are partners in China, and the former is

showing her good faith by assuming her share in carrying France and Great Britain.

This community of interest is a long step forward towards the preservation of a permanent peace in the Pacific. Any agitation designed to sever this bond is as unwise as it is dangerous. The American government has insisted upon international cooperation in China, which on analysis, means co-operation between America and Japan. We have achieved our purpose. Let us live up to the new doctrine and try it out honestly. Give Japan her chance. It will make business conditions better for everybody.

### Japan's Imports of Pig-Iron

The Asahi says the importation to Japan of pig-iron from America and China is increasing each year, while from England the shipments show a gradual decline. The demand for pig-iron in 1914 was 467,282 tons, the output at home being 300,221 tons, and the imports 167,061 tons. Last year the demand amounted to 845,000 tons and the output at home to 645,000 tons, the imports being 200,000 tons. The imports from China in 1913 were 56,996 tons, but last year the figures increased to 155,258 tons. The following table shows the imports from the United States and England during the past six years:—

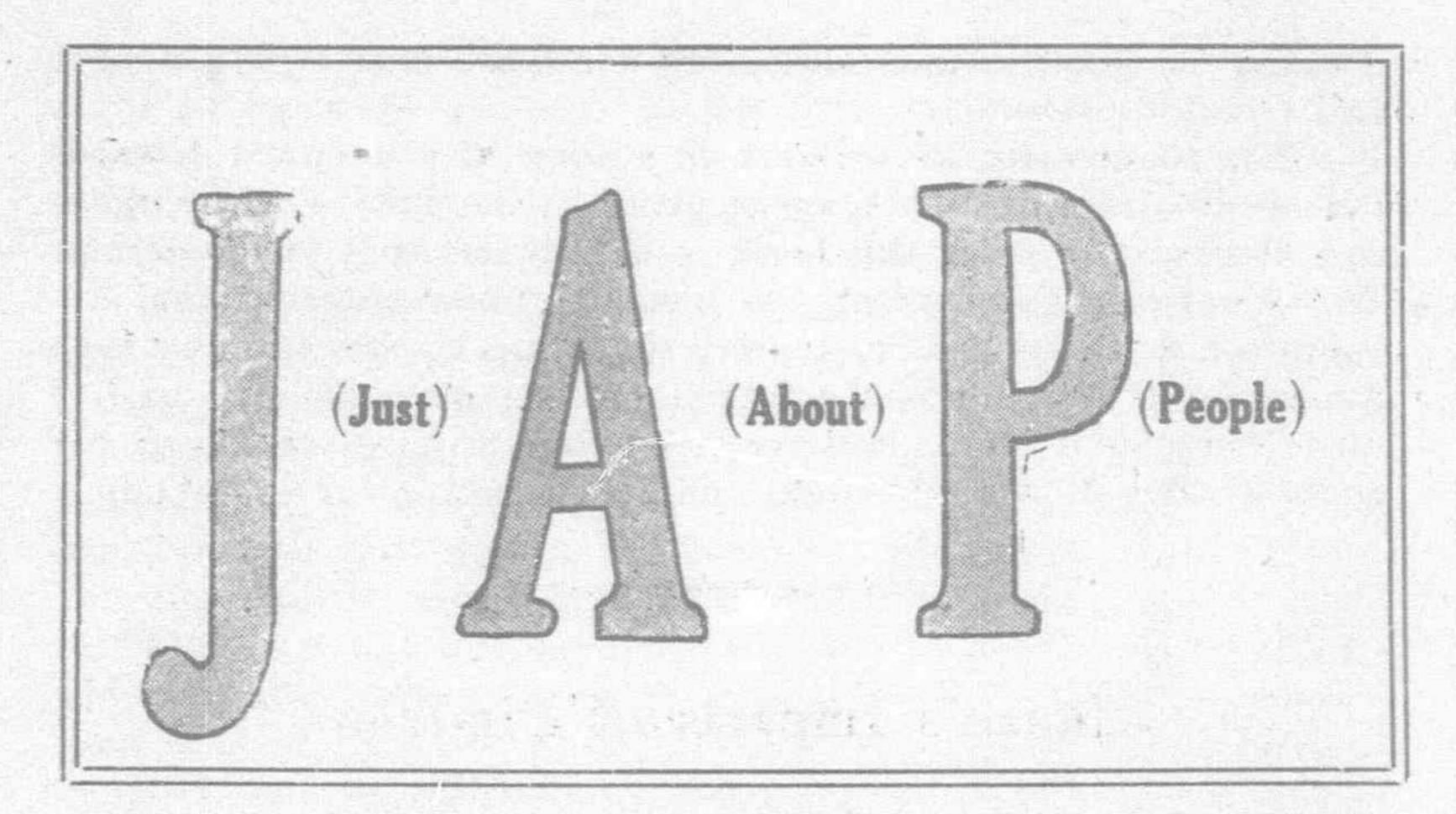
				AME	RICA ns.	ENGLAN. Tons.	D
1913	***			4	100	97,896	
1914				3,1	105	59,834	
1915				1,0	)51	36,274	
1916				3,8	375	32,070	
1917		***	•••	24,4	133	5,681	
1918				29,8	305	8,756	

### Japan Will Pay

The Japanese government has decided in future to pay the expenses of Chinese students who are pursuing their courses in the various high and technical schools of Japan. Hitherto it has been the policy of the Chinese government to defray the expenses from the state treasury, but recently the Japanese officials refused to accept any money for the education of the Chinese young men. At the last session of the Diet it was decided to set a special fund aside to be devoted to this purpose and a claim was allowed for Y.73,483. There are now about 400 Chinese students matriculating at the high schools and polytechnic schools in Japan.

Northern Saghalien Development.—The Japanese authorities have decided, according to the Chuwo Shimbun, to develop the natural resources of the zone in Northern Saghalien and Siberia that the Japanese propose to occupy temporarily, until a competent and stable Russian government has been established. The fishing grounds and forests, the gold mines and other objects of commercial value will be offered for public auction, while the Department of Agriculture and Commerce is proposing to dispatch experts and specialists to make investigations regarding the natural resources of the occupied region.

Relieving the Japanese Copper Situation.—Stocks to the amount of 30,000 tons of copper have accumulated in Japan and 60,000 tons are expected to be added to this as the result of this year's output of Japan's mines. The leading Japanese producers are therefore making a serious effort to dispose of this stock in foreign markets, and negotiations in China have resulted in disposing of 1,300 tons. Further contracts for the use of Chinese mints of 1,000 tons are being negotiated, but definite business is retarded owing to the uncertainty of the government's stability and the guarantee of payments.



TE who look to the league of nonsense as an effective international court of last resort (where the 21 demands of yesterday may be transmuted into the one-and-twenty desires of to-day) attend to the history of Emir Feisal, Arab hero, "lion" of Peace Conference "pink teas," victim of circumstances and European eminent domain over Asia. Feisal and his father, the King of the Hedjaz, stood between the Germans and the conquest of Egypt and of the Near and Middle East. A mere boy, a wonderful young fellow, Colonel "Tom" Lawrence, fresh from Oxford, his head full of dead and living Oriental languages, his heart full of love for humanity, his simple suit-case full of queer books on queerer fossils, sought inspiration in the desert and found opportunity in the tall tent of Feisal. They became fast friends. The fact that Feisal is a descendant of the prophet, Mahomet, and his "dad" shereef of Mecca did not count against him with the British boy, Lawrence. Rather, it appealed to Lawrence's sense of adventure Upon the Oxford youth's sense of adventure and his love of risking his own skin, upon Feisal's friendship for England built upon his love of Lawrence, upon the heroic campaign waged by these children of the sands, a strange rope of politics and warfare was fashioned for Allied victory and German defeat. It was this stout rope that helped



COLONEL THOMAS LAWRENCE
Who Made Good Allies of the Children of the Desert

hang the Turk, saved the Suez canal, captured Damascus and Jerusalem. In return for such good service (and because the curious headgear of Feisal and Lawrence made quite a hit on the Rue de Rivoli) the Arabs were given as many seats as the Chinese at the peace table of the Quai d'Orsay. Now, they have got worse treatment. The latest news from Damascus is that Feisal received from the French twenty-four hours' notice to quit



EMIR FEISAL

Direct (37th) Descendant of Mahomet

the town. The Arab state was a charter member of the league of nonsense. Feisal signed the greatest charter with his own hand and afterwards signed a postal picture for our best girl. The postal picture proved to be worth something. The greatest charter has proved to be worth nothing. Feisal's fate should be noted at the Peking Waichiapu. It is a horrible warning against placing any faith in the greatest charter, the worst jest ever perpetrated upon credulous mankind, notwithstanding the fact that its chief author claimed for it a sanctity scarcely second to that of the covenant popularly supposed to have been dictated by God and taken down in Hebrew shorthand by an earlier Moses, who got very angry about a Calf of Gold, broke his stone note-book and thus became the first man to "break the law."

West-wise, more than usually gifted, a real diplomat and nobody's fool. He has been of some service to his state. The fact that he was minister at Berlin when China blundered into "a sort of war" need not necessarily count against him. His friends hope that he will not commit the folly of tangling up his poor, distracted country with that most dangerous



DR. W. W. YEN New Chinese Minister for Foreign Affairs



MR. CHOW TZU-CHI,
China's Finance Minister and Delegate to
Consortium Conference

Professor crack his beard with laughter.

Dr. Yen is too promising a young Chinese to bark his shins against the Russo-Chinese-German ashcan without arousing a pang of regret. That way leads to the certain partition of China. There is "a very superior person" at the London

foreign office whose first two given names are George Nathaniel; and, if a whisper gets to him about this Russo-Chinese-German business, he is likely to have a very serious talk with Sir Beilby Alston, Cecil Harmsworth and or two other people who think much and say very little for publication; and there might be the very dickens to pay before Dr. Yen could awaken to what would be popping. The British and the French are not in a humor to stand any nonsense, and we are not aware that Bolshevism has become the vogue in Wall street.

CHINA'S new cabinet is casting longing eyes at Wall street. The Peking

of all tomfool experiments, an alliance of hearts with the defeated participant in the late international Donnybrook. The air is full of strange rumors.

That the Chinese are more than 90 per cent. pro-German is an all-present, selfevident fact. We would like to find a Chinese from coolie to cabinet minister who is not head over ears in love with the late losers. No secret is made of intentions work with Germany. Convinced that the jig is up in that little matter of fooling Americans into fighting Japan, the "Jap-Slappers are devoting most of their time to coddling the original owners of the Kiaochau lease. It is enough to make a Herr

government is worse than broke. It is poorer by far than a Georgia coon after his first pay-day in Washington, D.C., and a crap game with one of those educated "M" street colored persons. We are reliably informed that Mr. Chow Tzu-chi, the new minister of finance, finds that his office owes the other ministries and the Chinese banks no less serious a sum than \$380,000,000. The revenues of the ministry of communications have been mortgaged in advance. What is the cabinet to do?

The answer, of course, is to send Mr. Chow Tzu-chi to Wall street to see Mr. Lamont and get him to raise the wind for China. It was carried unanimously by a rising vote and an



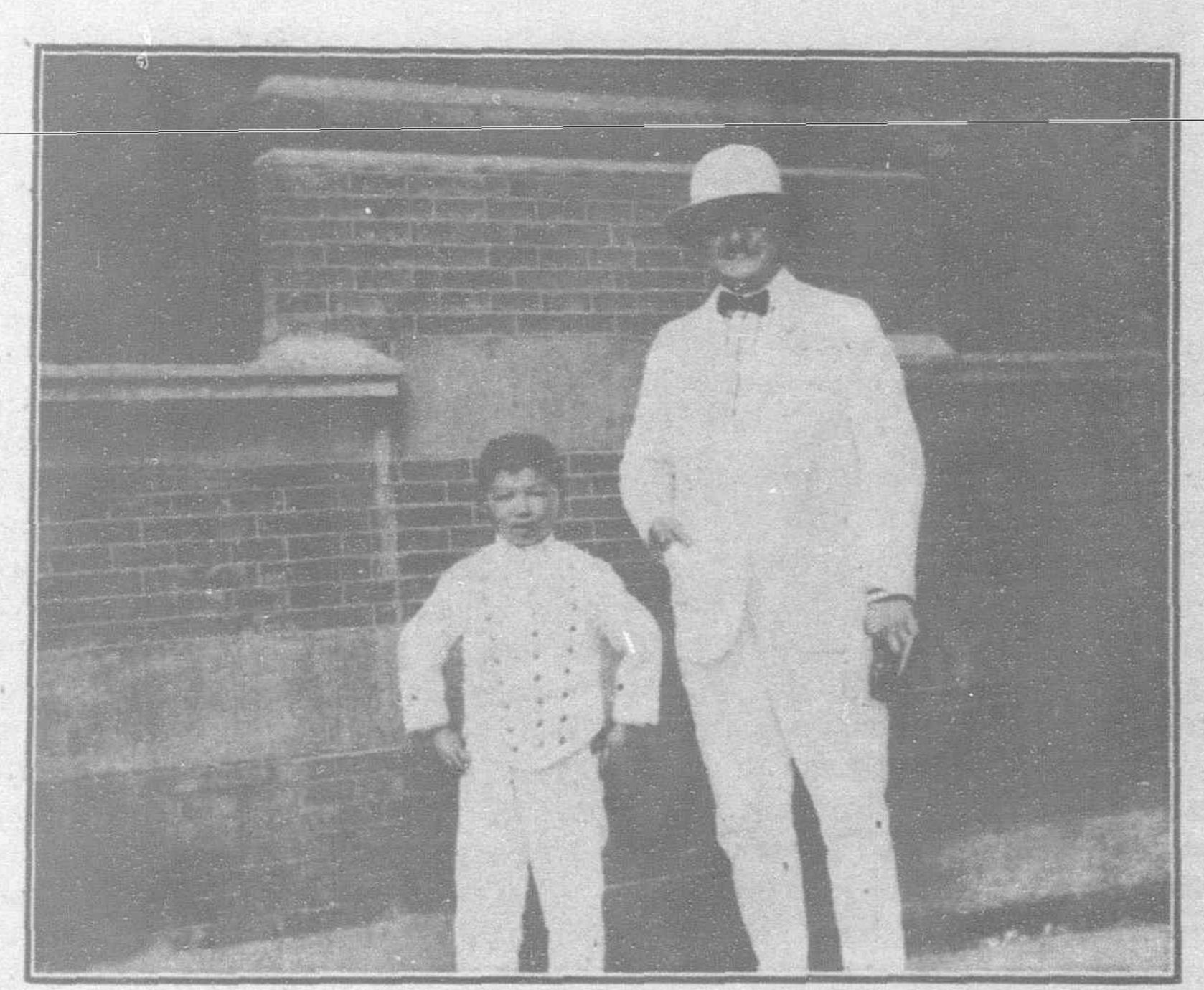
MR. C. C. WANG,
Chinese Railway Expert who may Attend Consortium Conference

urgent message to the President not to take "No" from Mr. Chow.

Mr. Chow is an able revenue-getter with a long and good record of service to China. With Mr. Liang Shih-yi, he did much to keep up the credit of China among serious foreigners

who take little stock in the political flummery of Peking or Canton. He has behind him a remarkably good administrative record. As Chinese delegate to the Consortium meeting, he will be welcomed by friends who know him and trust him.

It is reported that Mr. C. C. Wang has been invited to accompany Mr. Chow to New York as chief railway expert. The choice, if made, would be an excellent one. Mr. Wang would be a real tower of strength to Mr. Lamont. His knowledge is sound. His personal character is unimpeachable. He has the Wall street manner, a fine, frank and open way of doing things, a record for square dealing. With Mr. Chow and Mr. Wang, China would have a representation



Mr. Ralph, Dort and His Dead Chinese Friend, Little Piccolo

that would go far to convince the matter-of-fact men who will frame the decisions at the Consortium conferences.

A PART altogether from the fact that he is one of the most eligible bachelors of to-day, Dr. Stanley K. Hornbeck, who is revisiting the Far East, is the author of one of the few good, more or less recent volumes of Eastern Asiatic political history. Contemporary Politics of the Far East was written by Dr. Hornbeck while he was a resident of

China. We hope that this brilliant young American historian will spare enough time to secure material for another good book before returning to God's country. He has a fine eye for facts and a habit of telling the truth not shared by most of those who have bungled their way into Oriental authorship. There is room on the bookshelves and in the pages of serious American publications for writings like those of Hornbeck.

Stanley K. Hornbeck was the first Rhodes scholar from his state, Colorado. He carried with him to Oxford the Rocky Mountain outlook and made quite a hit with the bookworms and boatmen of that famous spawning-ground of scholars and sports. He won more than an ordinary man's share of prizes and began collecting degrees and data that have come in handy since he turned his talent to Asiatic politics and economics. Therefore, the "doctor" which is not misplaced in his case. He was one of the two Far Eastern experts attached to the American peace mission, and he was well liked and deservedly respected among those who did business at the Crillon. His unusually wide international experiences add weight to his literary contributions. Thus, his return to the East is a matter of primary political importance.

memorial for the benefit of his wife and children. The other world is richer by his cheerful smile. There ought to be room in heaven for such a good little chap and, as Mr. Balzac says, "an inch more or less does not count among the angels."

New German Steel and Iron Association.—A decree of the German national government, dated April 1, 1920, established for the control of the iron trade an autonomous body with legal

standing called the "Eisenwirtschaftsbund" (Iron Trade Control Association) with head. quarters at Dusseldorf.

Mr Tetsutaro Sakurai, president of the Bank of Taiwan, has retired from his office on account of ill-health and Mr. Kojuro Nakagawa, vice-president, has succeeded him.

New Hospital, Kobe.—The sum of Yen 300,000 has been contributed by Mr. K. Matsukata, president of the Kawasaki Dockyard, and Mr. N. Uchida, president of the Uchida Steamship Company for hospital work in Hyogo prefecture, and it will be expended on a new surgical building attached to the prefectural hospital.

NEW METEOROLOGICAL OBSERVATORIES, JAPAN.—Provision
was made by the Diet for the
construction of two new meteorological stations in Japan, one
near Kobe, for studying weather conditions and keeping in
radio touch with steamers
through the wireless station at
Funabashi, and the other a high
altitude station at Tateno in
Ibariki prefecture.



DR. STANLEY K. HORNBECK American Historian Who is Visiting the Far East

ITTLE Piccolo is dead. He was a great little man. He was probably better known all over the world than anybody else in Shanghai.

He sold cigars and cigarettes at the Astor House and caught the eye of every visitor. Although a grown man with a wife and several children his cute little head scarcely topped the the level of the tables as he smiled his way to sales and big tips at tiffin and dinner time. Small in stature, he was large of heart and quite a little philosopher with a rare fund of experiences. He was big enough to resent an impertinence and to remember a kindness. No courtier of the time of Charles or Louis or Francis was ever more polite to the ladies than little Piccolo, the smallest cigar salesman in all the world. He loved to light the ladies' cigarettes for them and, judging from our observation, the ladies at the Astor reciprocated. It was a real treat to watch Piccolo at work. Cholera carried him off suddenly in the early part of August. His friends and customers at the Astor made up quite a substantial purse as a practical

A Daibutsu that will be six feet taller than the statue at Kamakura and three feet higher than the largest Buddha in Japan, the Nara Daibutsu, will soon be erected at the temple of Bansho in Beppu-machi in Kyushu, says the "Japan Advertiser."

Insurance Policies, Japan.—At the end of June life assurance offices in Japan held pending contracts numbering 3,082,000 and valued at Y.2,363,000,000. Conscription insurance offices held pending contracts to the extent of 534,000 valued at Y.138,000,000. Accident insurance offices' pending policies numbered at the end of the month 15,000, their value being up to Y.41,000,000. Fire insurance offices' pending policies numbered at the end of June 3,400,000; the policies being valued at Y.11,050,000,000. Marine insurance companies' pending policies numbered 196,000, the value of the risks covered being Y.23,090,000,000. Transit insurance offices' pending contracts numbered 12,000 at the end of June, the value of the risks covered being Y.32,000,000.

### The Far Eastern Review

A Monthly Review of Far Eastern Trade, Finance and Engineering, Dedicated to the Industrial Development and Advancement of Trade in Far Eastern Countries

ENGINEERING

FINANCE

COMMERCE

5 JINKEE ROAD, SHANGHAI, CHINA

Telegraphic Address: Farview, Shanghai

SHANGHAI, SEPTEMBER, 1920.

### Paid Pipers Please Note— 'There Ain't Going to be No War!'

THE MAKING OF WARS THERE IS SENTIMENT TO BE CONSIDERED. THERE IS NO PUBLIC SENTIMENT IN THE UNITED STATES THAT THINKS SERIOUSLY OF WAR BETWEEN JAPAN AND AMERICA. IF THE SOLDIERS OF THE UNITED STATES. WHO HAD A TOUCH OF WAR IN EUROPE. WERE TOLD TO-MORROW THAT HUNDREDS OF TRANS-PORTS AWAITED THEM IN PACIFIC PORTS TO CARRY THEM OVER FOR A WAR WITH JAPAN, WHAT DO YOU THINK THOSE YANKEE DOUGHBOYS WOULD SAY? WOULD IT BE, 'ON TO JAPAN'? I THINK NOT. IN-STEAD. THE SOLDIERS OF THE UNITED STATES. DESPITE THEIR READINESS TO FIGHT IF NEED BE. WOULD SAY, GIVE US THE REASONS WHY SHOULD WE FIGHT JAPAN'? AND EXISTENCE OF AMERICAN INSTITUTIONS THE RICAN SOLDIERS WOULD DEMAND THAT THE AME-INTERVIEW WILLIAM CROZIER, FORMER CHIEF OF ORDNANCE OF THE UNITED STATES ARMY .- The Japan Advertiser, August 7, 1920.

### Siberian Sentimentality

Justin and Northern Saghalien, while Japan is equally busy in attending to her own affairs obtaining possession of guarantees for her future security against the day when Russia will be in a position to reestablish diplomatic relations with her old friends. The American government has requested Japan to explain her objects in North Saghalien, after carefully reviewing the circumstances surrounding the original dispatch of the Allied armies to Siberia. It is understood that Japan has replied, in effect, that she intends to occupy North Saghalien and the lower Amur river ports, as guarantees for indemnification for the Nikolaievsk massacre until such time as negotiations can be opened with a proper Russian government recognized by the other powers.

The Far Eastern Review has been most emphatic and consistent in its stand that the United States has no business in Siberia, that it is unwise to mix in these Asiatic quarrels originating in the tremendous racial struggle now finding its solution in these distant lands. No matter what the object of the American government, the sending of an army into Siberia was a mistake, a sentimental overriding of practical facts. It is on record that General Tasker Bliss, chief of staff of the American army, and head of the Military Strategy Board, strongly opposed the sending of an American army into Siberia. General Bliss testified before the Senate Committee on Foreign Relations that this was the only instance where the President over-ruled his advice and took matters into his own hand. This one incident constitutes sufficient evidence that the Asiatic policy of the administration is based on a sentimental disregard of prac-

tical conclusions arrived at by those who have the safety of the nation in their keeping. General Bliss was for many years president of the Army War College. He is now head of the Council of National Defence. He has specialized on Far Eastern problems, and is probably the American strategist best qualified to express an opinion in these matters.

Nothing is more reprehensible than the misuse of official data, however obtained. There is a certain writer on Far Eastern matters, the hired man of a vicious faction, who, posing as a Far Eastern expert, misuses United States government reports of a confidential character in order to bolster up his one-sided arguments. That is a despicable practice. Nothing is more misleading or more dangerous than part-publication of official records. Usually, as in this case, the truth is concealed because it is contained in reports neither obtainable nor utilized by the unscrupulous jackal.

Misrepresentation and gross breaches of official confidence make it necessary and proper to state that a military expert's report, approved by the Chief of Staff, advised as far back as December, 1917, that Japan be permitted to handle the Siberian question, alone, and without hampering restrictions. The facts were fully outlined and the realities of the situation made clear. The President over-ruled his chief military adviser because his mind was bent upon following the Russian policy outlined in his message to the Moscow soviets' congress. He had constructed in his head a dream castle of Russian democracy and he has clung to this dream castle from first to last. It is but fair to the President to say that undoubtedly he has been actuated by high motives of lofty public policy. It is only fair to the experts, and to real American interests to say that, as in the matter of the league of nonsense, the course set at the White House has been wrong-headed and mischievous from 1917 to date.

The duty and function of the General Staff is to advise the government on technical matters involving the security of the state. It is the duty of the President to heed such advice. He is not bound always to follow it, but he can depart from it only at peril to his conscience and his country. He may be right in rejecting it, but he may be wrong; and if he is wrong, his conscience and his country pay the costs of his error.

Mr. George Creel was Mr. Wilson's official mouthpiece until the President made his first trip to Europe. After the George Washington got well away from the American coast, the President sent for his stenographer and the list of those aboard. He ran his eye over the list and came to the name of Mr. Creel.

"Creel," said the President; "who invited him? Who is

he, anyhow?"

"Why, sir," ventured the flustered male stenographer; "Mr. Creel is the chairman of the committee on public information. He's your guest, isn't he?"

"No, indeed," said the President, with one of his dry grins;

"he's no guest of mine."

Thus came the passing of Creel. He just dropped out, to

be succeeded by the good-natured Ray Stannard Baker.

Mr. Creel has come to life again with a book and some interesting personal glimpses of the inside workings of the White House. He tells us how rigid rules were laid down by Admiral-Doctor Grayson and the consulting physicians, and how these rules were exercised with mechanical precision, to safeguard and conserve the President's health and strength. That was very proper. Both in his public and his personal character, Mr. Wilson's health is a matter of deep interest and affectionate concern. The doctors were of right the doctors in such case. Laymen might have endangered the President's life.

Turning back, however, to the problem of Siberia, it would seem that the health of the President was of greater concern than the health of the nation. Doctor Grayson could and did lay down the law and Layman Lodge and Layman Lansing had to toe the line and keep off the grass. Not so with "Doctor" General Bliss, charged with protecting the health of the nation. His specialized judgment was discarded by a sentimental President.

Layman Wilson went his own way.

Under such distressing circumstances, it is extremely difficult to win public support for essential foreign policies. It does not seem to be quite fair that the American people should be required to swallow at a gulp a long-shot in foreign affairs that

is disapproved by the chief technical expert.

That Bliss has been right all through, and Wilson wrong from first to last, is painfully clear, just now. The pendulum has swung back again and we are once more confronting a critical Siberian problem.

THE FAR EASTERN REVIEW adheres to its original conclusions and holds to its considered opinion that Japan's actions, or

American lives and valuable property would have been saved. Mexico would long ago have come to her senses. Gladly would Mexico have given the required guarantee for the security of American interests in that lawless country. America, in her strength, can afford to be lenient with her smaller and weaker neighbor. Japan must take advantage of every opportunity to protect herself against a nation which outnumbers her three to one. There can be no comparison.

### PUBLISHER'S ANNOUNCEMENT

### The Far Eastern Review Supports the Consortium

THE FAR EASTERN REVIEW supports the Chinese Financial Consortium. All that it can do to make the Consortium an active, practical success will be done, cheerfully, willingly, with all the force at our command.

Mr. Thomas W. Lamont, of J. P. Morgan & Company, has issued a public statement, emphasizing the fact that the Consortium depends for its success upon the participation, co-operation and good-will of all the peoples comprising the nations entering into this enterprise. In other words, Mr. Lamont echoes the truth that we have pointed out from the time when the Consortium was first organized in Paris:

IN THE LAST ANALYSIS, ITS SUCCESS MUST REST UPON THE ABILITY OF ITS MANAGERS TO INTEREST THE INVESTING PUBLIC. As we have repeatedly declared, THIS CAN NEVER BE ATTAINED SO LONG AS CHINESE OFFICIALS ARE PERMITTED AND ENCOURAGED TO CONDUCT A VICIOUS PROPAGANDA INTENDED AND CALCULATED TO ESTRANGE AMERICA AND JAPAN—A PROPAGANDA DELIBERATELY ORGANIZED WITH THE OBJECT OF PRECIPITATING HOSTILITIES BETWEEN THESE TWO FRIENDLY NATIONS AND CHIEF PARTNERS IN THE CHINESE CONSORTIUM.

Mr. Lamont might follow up his timely and sensible statement by making an appeal to the patriotism and good sense of American editors. As the owner of the influential New York Evening Post and other great American newspaper properties, Mr. Lamont is well qualified to tell other American newspaper owners and editors truths that he learned during his visit to the Far East. He came into close personal touch with the jackals of Far Eastern propaganda. In Shanghai, their Asiatic headquarters, they dogged his heels, howled upon his doorstep and bared their poisoned claws right under his eyes. He saw Bolsheviks posing as the only simon pure Americans, stabbing America in the back, belittling the proudest achievements and finest traditions of America in foreign newspapers, combining with anti-American foreigners to obstruct legitimate American business in Asia, menacing America's friendly foreign relations for a stated price. That Mr. Lamont, a keen, experienced, impartial and deeply-interested observer, saw fully the foul inside of the cup of Far Eastern propaganda, THE FAR EASTERN REVIEW knows from probative facts.

Mr. Lamont is thoroughly informed as to the direct, vicious connection between the Shanghai "Jap-Slappers" and their New York and Pacific Coast confederates in the theft of valuable newspaper space. He is in an exceptionably good position to advise newspaper owners and editors how to protect themselves and their readers by careful scrutiny of loaded free matter and some inquiry into the affiliations of paid correspondents. He knows full well how proper and praiseworthy friendship to China is being prostituted into direct and deliberate antagonism to Japan.

Mr. Lamont might go further and invite the attention of his good and great friend in the White House to the existence and the operation of the menacing liaison that has crept silently and secretly from the yamens of the Waichiapu and cast its serpentine coils around our diplomatic service in China. He knows that this liaison concentrates upon one object, the misrepresentation of Japan, the creation of trouble between Japan and America. He is well aware that the continuation of this liaison jeopardizes the safety of the Consortium.

THE FAR EASTERN REVIEW has full faith in the sincerity, intelligence and unselfishness of Mr. Lamont; and in the urgency for the Chinese Financial Consortium we concur with Mr. Lamont, who has gone to much personal trouble to realize a splendidly utilitarian ideal. We join with the head of the American group and the chief active architect of the Consortium in urging a long pull, a strong pull and a pull altogether. An alliance based upon fundamental dishonesty and bad faith cannot stand the test of practical operation.

THE FAR EASTERN REVIEW has criticized the Consortium in the making. This has been honest, helpful, constructive criticism based upon an intimate knowledge of the inside workings of Peking politics and secret understandings. We have made a sincere, and we believe a useful attempt to point out the pitfalls and aid in giving intelligent, friendly guidance so that real success may come to American policy in China. Any fool can say a popular thing. Constructive progress has ever been based upon criticism that clashes with popular clamor. Flattery is soft. So is a quicksand. Criticism comes hard as flint, but it helps to lay down a good, solid, substantial foundation of fact. You cannot build safely upon "soft sawder." You can go as high as you please upon hard facts. Mr. Lamont and his able associates, practical, hard-headed business-men, know the difference between flabby flatteries and firm, friendly statements of fact.

The Publisher of THE FAR EASTERN REVIEW has led the way in seeking a sensible solution of Chinese railway problems. He has devoted the best years of his life and sacrificed personal opportunities in legitimate efforts to advance the legitimate cause of China. Repeatedly, he has seen this good cause go down to defeat, chiefly because of the unstable, wobbling policies of the present administration, and also because of evil, short-sighted advice followed to their country's cost by Chinese officials.

IN NO SENSE OR DEGREE HAS "THE FAR EASTERN REVIEW" EVER WAVERED FROM ITS BASIC POLICY OF FRIENDSHIP TO CHINA. IT HAS BEEN MOST FRIENDLY TO CHINA WHEN IT HAS DENOUNCED AND EXPOSED POLTROON-PRIMED POLICIES MENACING CHINA AND SETTING HER AT NEEDLESS VARIANCE WITH HER MOST POWERFUL NEIGHBOR.

The Consortium has been formed. America and Japan are partners, working side by side with Great Britain and France for the reorganization and resurrection of China, the preservation of Peace in the Pacific. THE FAR EASTERN REVIEW is firmly convinced that the time has arrived when selfish aims, individual or collective, national or international, must give way before the higher interests of mankind; when vain and vexatious competition and contaminating, antagonizing greed must be thrust out of the way in China and a clear and clean pathway beaten for Peace and Order, Co-operation and Good-will. Firmly intent upon this course, in line with its established policy (from which it has never willingly wavered) it will contribute its knowledge and experience to the success of the Consortium.

GEORGE BRONSON REA.

contemplated actions in Siberia are none of our business. It is our confirmed belief that we are needlessly and foolishly complicating the Siberian situation, gratuitously and blunderingly meddling with the vital policy of a people bravely struggling under severe handicaps to preserve their own national life and independence.

Japan is proceeding in an intelligent, systematic manner to preserve her advantages and hostages for the future good behavior of Russia. Had the United States held the ports of Vera Cruz, Tampico, and other commercial outlets of Mexico, many good

A brigade of Japanese infantry has been dispatched to Alexandrovsky and detachments will occupy the important points along the Okkotsk coast. A battleship will winter at Petropavlovsk. Several hundred carpenters are on their way to construct the necessary barracks. There is every indication that the entire Siberian coast north of the Korean border will pass under Japanese control, the most effective guarantee that when Russia returns to her senses Japan's national existence will never again be menaced from that direction. The expenses of carrying out the military measures for the occupation of these districts

have been voted by the Diet. Japan is attending to her own vital affairs in her own proper way.

### Japan's Electric Lamp Industry

THE demand for electric lamps in Japan is rapidly increasing, and with the completion of the many new power plants under construction and projected, the home market may be expected to keep the factories busy. Business has more than doubled in the last six years. It is estimated that Japan has 15 million lights with a consumption of about 23,000,000 lamps per annum.

About 80 to 90 per cent. of the output is manufactured by the Tokyo Electric Company, the Japanese branch of the General Electric Company, but other companies are forging ahead producing lamps of excellent quality using the tungsten filament. The leading competitor is the Dai Nippon Electric Bulb Company. The Kobe Electric Lamp Company, the Tokyo Taguro Electric Lamp Manufacturing Co., The Lion Lamp Company, S. Kondo & Company, and the Nippon Chisso Lamp Company are also building up large businesses.

### Splashed with Prussian Paint

THE announced suspension of the "blackjack" section of the Jones Shipping Act provides necessary breathing-space between the enactment and enforcement of a sensational piece of American high protective legislation. From now until January 1, there is ample time for thought, argument and action. The strong points and the weak points, the wholesome and the vicious points of the measure will surely be detected and preserved or eliminated as justice and reason shall dictate. May we suggest to friends and foes of the law as it stands on the statute book that there is much need for analysis of ascertainable facts and for some orientation of both domestic and foreign thought, and no need at all for either threats or angry international animadversion.

Some of us are old enough to remember the rage that was aroused by the Dingley tariff and the terrible things that were predicted as a consequence of that "leap in the dark." Well, we survived the clamor. We venture the prediction that both America and her foreign friendships will oulive the shock of the present shipping tumult. The wharves of Seattle, Washington, will not follow into rust and ruin those of Salem, Mass., so feelingly described in their day of decay in the pages of "The Scarlet Letter." Neither the British nor the Japanese flag will pass away from the Pacific. Nor will the people of the United States be lured on to the rocks of any provably mad adventure by the political Valkyries of Capitol Hill. A President is being elected by the forty-eight sovereign states of the American commonwealth, these are days of sharp and biting electioneering criticism, and it may fairly be assumed that the Jones Law will be bared to the bone before the votes are cast in November. Neither of the great political parties can afford to flout or fly in the face of Pacific Coast opinion, and Pacific Coast opinion may be depended upon to make itself heard while the hearing is good and profitable.

So much for a calm and common-sense attitude in approaching discussion of this master-piece of Congressional skulduggery, "conceived," according to a very competent critic, "in an atmosphere of political idiocy and ignorance and carried out by the most hostile Congress and the most arrogant and autocratic administration in the whole history of the American people." Preserving a proper equilibrium, and declining to be swayed by the passionate pleadings on one side or the other, let us calmly say that the manner of presenting this legislation to America and her friends has been as highly edifying as a hula dance, as sweet-smelling as a cess-pool and as palatable as a dish of devilfish. Senator Jones, the author of the act, and the counsel for the shipping board who aided and advised the Washington statesmen, took a pot of Prussian paint and dashed it in the face of America and her friends. That was neither necessary nor desirable.

The since-suspended "blackjack" section was thus defended by Senator Jones:

"The sole purpose of section 28 and all that it does, is to require the Interstate Commerce Commission, whenever it does give preferential rates, to give them only in the case of goods imported or exported in American ships, and then only if American ships are available.

"When adequate shipping facilities are not afforded by American ships; the Interstate Commerce Commission may give preference, if it desires to do so, to goods imported or exported in alien ships. The Shipping Board will determine when adequate facilities are not available, and the right of the Interstate Commerce Commission to give a preference to goods shipped in alien ships will continue until adequate American shipping is provided.

"This follows action taken by other countries and action that was pre-eminently successful in the case of Germany. The provision was framed by the Shipping Board and submitted to the Interstate Commerce Commission and it was strongly urged by the Pacific Steamship Company and several Pacific Coast commercial bodies."

Quoth the shipping board's counsel:

"We can insure the success of American shipping in the foreign trades by adopting the present practices of Japan, the practice of Germany during the entire period when that nation owned a merchant marine, viz., establishing that the preferential rail-freight rate on export and import freight in the United States rail carriers, now given indiscriminately to the vessels of all nations for the purpose of balancing rail traffic, shall apply only to vessels of the United States."

It is a sad commentary on American diplomacy that at this late date we are forced to admit that the methods of Germany and the much criticised paternalism of Japan for the advancement of their export trade are justified. The Shipping Poard openly cites these examples as justification for the application of protective freight rates to advance our own commerce, overlooking the fact that it is impossible for Japan to apply any preferential railway rate in her own insular territory that can operate as a discrimination against foreign shipping. Our official adoption of these practices is a tardy recognition that a nation is entitled to use any justifiable methods within its treaties to protect its commerce. Now that the United States has placed its stamp of approval upon preferential railway rates and other practices to maintain its merchant marine, the stock arguments against Japan in Manchuria must go into the discard. If we admit by emulation that Japan and Germany were justified in resorting to protective measures for the expansion of their commerce, the history, not only of the Far East but of the world during the past two decades, will have to be rewritten. If we are to follow in the foot-path beaten by Germany, will not the road lead us through the same mazes of international complications and trade jealousies and ultimately to the same challenge from enbittered unsuccessful competitors? If the United States, confiding in the sense of justice of other nations and its own strength, can abrogate with impunity, on ninety days notice, all treaties which in any way restrict our right to impose duties or other charges for the protection of our commerce, will not other nations follow our

WHY SHOULD NOT CHINA, BASING HER ACTION ON SIMILAR GROUNDS, FALL INTO LINE AND IMMEDIATELY SERVE NOTICE ON THE TREATY POWERS THAT SHE WILL NO LONGER BE BOUND BY THOSE "SCRAPS OF PAPER" ENCROACHING UPON HER SOVEREIGN RIGHTS AND MENACING HER ADMINISTRATIVE INDEPENDENCE! WHY SHOULD NOT CHINA FOLLOW UP THIS BOLD PRONOUNCEMENT BY CALLING UPON FRIEND AMERICA TO SUSTAIN HER!

The answer, of course, is that the United States speaks and acts as a great power, while China must watch her step and carefully pick her words because, in the fine phrase of Mr. Woodrow Wilson, she must base her case "upon the handsome foundation of law and justice." China is weak. Her weakness, as Yuan lamented in 1915, "invites insult"—and injury.

Looked at from this standpoint, we are brought to a realization of a curious and important fact. In signing the Jones Act, President Wilson lit his pipe with "the heart of the covenant" solemnly made under his direction at the Quai d'Orsay, Paris, on April 28, 1919. It took him less than fourteen months to make open confession that the League of Nonsense is a still-born child.

There are many things back of the Jones Act that do not appear upon the surface. In the first place, it could be proved a direct outcome of the personal rivalry between Mr. Wilson and Mr Lloyd George at Paris. The doctrine of the "Freedom of the Seas" displeased the British premier, yet it must be confessed that he went out of his way to goad Mr. Wilson into taking a course that could only lead to a revival of the British bugbear. Thus, the responsibility for a serious breach of Anglo-American harmony must be shared between the two surviving political "popes" among the three who cut such mighty figures in the peace-making. They were not big enough, spiritually, to set the weal of the world and the Anglo-Celtic commonwealths above their own personal pride and political fortunes. They had a wonderful chance to knit Anglo-American interests solidly together-a chance that may not come again in our time. They kicked it away.

THE STRUGGLE FOR THE TRIDENT; THE VICIOUS AND MALICIOUS PROPAGANDA INTENDED TO BRING ABOUT WAR BETWEEN JAPAN AND AMERICA, THE INTRIGUES FOMENTING REBELLION IN KOREA, INDIA AND IRELAND, THE STIMULATION OF JEALOUSY AND SUSPICION BETWEEN ENGLAND AND FRANCE HAVE ONE COMMON OBJECT—THE ULTIMATE AND FINAL VICTORY OF THE RUSSO-GERMAN ALLIANCE.

The present lamentable situation was prophecied by many men, eighteen months ago. The news of the last few weeks, the resumption of the Chinese-German intrigues, the cabal against Japan's defensive measures in Siberia, the imposition by Russia upon Poland of peace terms copied bodily from the Allied terms imposed upon Germany, merely confirm forecasts made by trained observers. We are headed directly towards a general smash-up—if we don't watch out.

### The Struggle for the Trident

The struggle for the trident sorely wounds British pride and, taken in conjunction with the dangerous international political situation, it justifies British uneasiness. The British empire rests upon sea power. The American commonwealth is chiefly continental. The British and Japanese empires are insular empires. Sea power to them is all-essential. To America, sea power is one of several essentials, but (unlike the British and Japanese) our geographical situation is such that we cannot be placed absolutely at the mercy of any great naval power.

There is no binding reason why we should not aspire to control of Neptune's trident, and certainly no American would be willing to admit that even Mr. Andrew Furuseth or Senator La Folette could permanently prevent us from manning the mightiest fleet if we made up our minds that control of the sea is essential to American well-being. The force of this argument is acknowledged by sensible Britons and Japanese. When we make up our minds that we shall do a thing, we can do it. We could grasp hold of the trident and retain possession of it—until the next era in the passing of power comes along and the next successful competitor seizes the sceptre of the seas.

British control of the sea was cemented, but not won, by fortuitous possession of steam coal, iron and engineering skill and enterprise. British sea power was wrested from the Dutch, Spanish and Portuguese by the men of Devon, of Kent and of Cornwall. The lads that went to sea with Raleigh and Drake and Cornish, the men who built and manned and sailed the old windjammers of three centuries ago, who made seafaring the most alluring and most profitable business and took pride in having things "ship-shape and Bristol fashion," they gave the trident

TALK OF A MIGHTY AMERICAN MERCANTILE MARINE, WHILE LA FOLETTE AND FURUSETH WRITE FOREIGN LAWS ONTO OUR STATUTE BOOK, FILLING AMERICAN FORECASTLES WITH OVERPAID LASCARS AND DRUNKEN BEACHCOMBERS, IS MOONSHINE, SEA POWER DEPENDS UPON SEAMEN.

Mr. Ralph D. Paine, in The WORLD'S WORK, tells a most convincing story of how Mr. Furuseth and his foreign-controlled

International Seamen's Union have hamstrung every American effort to build up a body of American seamen worthy of our nation and its opportunities. Read this from a first-hand authority:

"After the signing of the Armistice, many young Americans who had completed their enlistments in the Navy began to appear aboard of our merchant ships. In the naval service they had been able seamen, quartermasters, coxswains, signal-men, etc. They were clean-cut, well-educated, and efficient, and discipline had placed its stamp upon them. But because, in most instances, they had been less than three years at sea, they could be accepted only as ordinary seamen on the merchant ships while the able seamen's quota was made up of foreigners. Resenting this discrimination and unwilling to live and work as inferior to aliens, most of these desirable young Americans left the ships after a few voyages, discouraged by the obstacles to promotion."

### Figures that Talk Out Loud

The beneficiares of the so-called American Seamen's Act are foreigners—mostly aliens of a low order. Of the 19,060 members of this union recorded last September as sailing from Atlantic ports, more than half comprised this assortment of all nations:

manta man	than	half	com	prised	this assortin	ient o	r all	nation	18.
				6	Austria	424		***	76
Argentina				84	England			1	,070
Belgium	***	* * *		6			***	***	,6
Bulgaria	***	***		2	Curacao				94
Cuba	***	0.00	* * *	992	Finland			***	560
Denmark	***	* *		*0	Germany		***		217
France	***		***		Holland				478
Greece	***		***	248					9
Italy				260	Mexico	***			
Norway				2,584	Portugal	***	***	200	
Rumania				4	Russia	***	***		1,040
~ .				390	Sweden	8.4.4	***	***	2,070
C				65%	Turkey	***	***		. 1
The	Furnse	th-La	Fo	lette	Act penaliz	es fo	reign	snip	ping

The Furuseth-La Folette Act penalizes foreign shipping interests as well as American owners and operators. When a cheap foreign crew puts in at an American port, the sailors all too often desert their ship, join up with Mr. Furuseth's personally-conduced establishment and then demand the American scale and all that goes with it. The foreign skipper, without hands at an American port, has to employ them-often the very men who have descrited his ship-and, under the law, he is bound to return them to an American port. It is a hold-up, all along the line. Young American sailors are perplexed to find that their carcers are hampered, "not by the masters and officers or the owners of the American merchant marine who are anxious to encourage and help them, but by a powerful group of labor unions which were organized to promote the interests of foreign seamen, firemen, and cooks. And no amount of comfort or good treatment at sea will reconcile this Yankee sailor of to-day to living and working with these foreign shipmates a day langer than he can help. Their ways are different from his, and they are not interested in his success. In his eyes, an International Scamen's Union cannot be an American organization."

The Furuseth-La Folette Act swept the American flag from the Pacific and presented our carrying trade to Japan and any other opportune competitor. American firms had to seek the protection of a convenient foreign flag or go out of business. The war compelled American shipbuilding and American operation of skips. The latest statistics tell the tale of how the pendulum is swinging back. The lead in shipbuilding has once more been taken by the British. Here are some interesting figures:

New Tonnage Under Construction:
British American Lead

Lead

Sept. 20, 1919 ... 2,816,000 3,470,000 654,000

British
Lead

Dec. 31, 1919 ... 2,994,000 2,900,000 95,000

Mar. 31, 1920 ... 3,394,000 2,996,000 398,000

The Jones Act, if strongly exercised, would of course resume

the building boom that began in October, 1917. In that event, necessity would compel legislation to outlaw the anti-American features of the Furuseth-La Folette Act.

The Jones Law bristles with boomerang features. The President is authorized and directed within ninety days to serve

notice on all governments of the termination of treaties that restrict the right of the United States to impose discriminatory tonnage or customs dues on foreign vessels or goods entering American ports. The laws affecting coastwise shipping, may also be extended to cover the Philippines by direction of the President. The secretary of state protested against these provisions, predicting that they must inevitably lead to differences with other countries and bring about reprisals and misunder-standings. The British government formally protested against the abrogation of the treaties which prevent the imposition of discriminating duties on imports carried in American vessels, while Japan is reported to be preparing a protest.

In defense of his child, Senator Jones has replied that other nations are abrogating treaties that conflict with their interests and hinder them in the struggle for world trade, and declares that "now is a propitious time for the United States to free itself from the shackles of old treaties, enter into new ones and enact such laws as will promote our welfare. Other nations will make concessions to attain certain advantages, and under the new law we have the power to secure these concessions." He adds, that "we may not adopt this policy, but we should be in a position to do it if we deem it wise."

### The Menace to the Pacific Coast

It is too early, of course, to hazard a dogmatic opinion as to the ultimate effect of the new law. The export freight rate at present applies only to transcontinental shipments, so unless we have the ships on the Pacific its elimination can only result in injury to the Pacific Coast by diverting this trade to the Atlantic and Gulf ports. Even if the preferential export schedule is extended to shipments to and from Eastern, Southern and Middle Western producing centers and the nearest ports, the differential in favor of American ships could not prevent the more cheaply operated foreign vessels from holding their own. The practical result of this would be to build up the Atlantic and Gulf ports and eliminate the Pacific Coast as a factor in our export trade. Once these new trade routes were established, no amount of new legislation could repair the damage. It will never be permitted to happen.

Seattle would feel the first effects of the new law. Unless it is modified, foreign liners now using that port as their terminal would remove to Vancouver where they would not suffer discrimination in favor of Canadian shipping interests. At Vancouver they would receive the benefit of the Canadian export railway rate, which would have the effect of diverting American shipments from the Middle West and Eastern centers to the nearest railway point over the Canadian border for transportation to the Canadian Pacific Coast ports. Viewed from this angle, the law would therefore penalize the American, and contribute to the expansion of the Canadian transcontinental railways. Or foreign shipping lines now using our Pacific Coast terminals would move to the Atlantic and Gulf ports where they would be able to compete, despite the differential in favor of American shipping. American exports originating east of the Rockies, would ultimately be monopolized by the Eastern and Gulf ports, while Pacific Coast exports would be confined to local products.

This blow to Pacific Coast interests is being held in abeyance pending the expiration of the ninety day limit and final action on the modification of the law. If enforced, a rate war will be precipitated and foreign vessels taken off the San Francisco and Seattle ports of call. The Japanese freighters will load at the Gulf ports where no preferential freight rates are in force, and all foreign lines will withdraw from the Pacific conference. As a result, considerable injury will befall many industries on the Pacific Coast, and plans for the further development of harbors, railway terminals, and other improvements will have to be curtailed or abandoned. The transcontinental railways, which, in the past, have profited by this west-bound export traffic, will be dependent for their profits largely upon their east-bound freight. As the preferential export rate was originally designed to provide west-bound freight for the transcontinental lines, the loss of this business may have far-reaching effects, as it is impossible for the lines to be operated profitably from the revenues of the east-bound freight traffic.

The prospect for the Pacific Coast would appear to be aggravated by the fact that all the prominent Atlantic and Gulf ports have been spending huge sums in improving and extending their terminal, warehouse and port facilities in order to obtain their full share of export shipments originating in tributary territory.

As a result of this sectional struggle for trade, the outlook for the Pacific Coast ports is far from optimistic. If foreign shipping interests should now decide to protect themselves while there is yet time, and transfer their terminals to Vancouver or the Gulf and Atlantic ports, the Pacific Coast could hope to retain its maritime prestige only by the gradual growth of industries that will permit it profitably to operate a merchant marine through the export of local products. Seattle has already made a very good start in this direction.

Although the law provides that its application may be suspended, whenever, in the opinion of the Shipping Board, there are not sufficient American vessels available to handle the traffic, it is evident that this was intended to tide over a difficult period, or until such time as adequate American shipping facilities are provided. In the meantime, it is to be assumed that foreign shipping interests are expected to maintain their expensive organizations on the Pacific Coast for the sake of what they may get in the way of cargo, pending such time as the American shipping program is completed and the final blow administered that will drive them out of the trade.

This seems like poor generalship. The rules of warfare will operate to give our competitors sufficient time to entrench themselves in other positions and combine against us. Retaliatory measures might be adopted by other governments. The valuable silk and tea cargoes originating in Japan could be carried by Japanese vessels, and they would get their full share of the exports flowing out of the Atlantic and Gulf ports. All other things being equal, the maritime supremacy will pass to those nations, who by reason of subsides, lower construction, fuel and labor costs, can operate their ships most economically.

### Up Goes the Tonnage and Down Come the Rates

An interesting sidelight is thrown upon the world shipping situation by the bulletin of the Supreme Economic Council which shows that the monthly average of tonnage launched for 1919 was more than double that for 1913. And now comes a dispatch from London giving the total tonnage of the world on June 30 of the present year as 53,905,000 tons or 8,000,000 tons more than on June 30, 1914. The official table gives the following remarkable figures:—

THE PARTY OF THE P			
Tonnage in Operation.		1920	1914
Great Britain		18,102,000	18,892,000
British Dominions	.,,	2,032,000	1,632,000
United States of America		12,406,000	2,027,000
Japan		2,996,000	1,708,000
France	•••	2,963,000	1,921,000
Germany	***	419,000	5,135,000
Other countries		14,987,000	14,088,000
Total		53,905,000	45,403,000

These figures show that not merely have the losses from submarine warfare been made good but considerably more than one-sixth of the total pre-war tonnage has been added and an additional sixth was in process of construction on March 31. Is this building warranted by the volume of goods being carried and the demand for freight space? That is a question that must be scriously considered. Not less striking is the total of 8,000,000 tons new vessels under construction on March 31, or about one-sixth of the total existing tonnage of the world. As the tonnage now under construction reaches completion, it would seem that the near future will usher in a substantial fall in rates. Unless a great stimulus is given to exports in the next year, the demand for ships will fall off, and a rate war will be precipitated, in which American vessels will be hard put to hold their own against foreign competition.

By reason of the location of her manufacturing centers in close proximity to deep water ports, Japan is precluded from

adopting discriminatory railway freight rates for the protection of her merchant marine. She may therefore adopt other measures in retaliation. The enforcement of the "Open Door" doctrine in China would prohibit her from taking any advantage for her trade carried over the rails of the Japanese-operated Shantung Railway, but the enforcement of the new law would undoubtedly lead to a renewal of the bitter fight for the trade domination of Manchuria and Eastern Siberia. Here, Japan holds all the cards in her own hand and can apply rebates for quantity shipments that would consolidate under her control the exports and imports into those regions. This is all the more regrettable as it comes at a time when in order to demonstrate her friendship for the United States, Japan has consented to waive certain valuable rights in that province and to surrender them to the Consortium. The law would make impossible any modification of the preferential rates for French products over the line of the Yunnan railway. Russia or Japan in contrel of the port of Vladivostok, the Chinese Eastern, Ussuri and Amur Railways, will have it in their power to offset the American preferential by the application of similar protective measures for their own shipping. The good work of the Consortium will be undone and the fight renewed along other lines for the trade domination of spheres of influence.

If we grant, for the sake of argument, that the operation of the new law will drive Japanese steamers from the Gulf and Atlantic ports as well as the Pacific, will it not result in diverting our Japanese trade to Europe? Where we sell, we must buy. If we create a situation which deprives Japanese vessels of their share of carrying American merchandise, purchased for their account, we must accept the corollary. Japanese exports to America and much of the Chinese freight will be carried in Japanese bottoms to the Atlantic and Gulf ports, where, even if a differential is imposed in favor of American shipping, it will be so small that it cannot offset the cheaper costs of Japanese operation.

### Stimulating Sectional Bitterness

We have started a trade war that may intensify domestic sectional bitterness. The Eastern ports are entitled to equitable treatment from Congress in order to obtain their just and proportionate share of our export shipments. If rebates are granted on transcontinental export shipments for the purpose of favoring Pacific Coast ports, similar benefits will be demanded by other deserving sections of the nation. Deprived of their maritime supremacy on the Pacific, the Coast states will have to make a heroic effort to establish their economic independence. This situation is emphasized by the announcement of a new Shipping Board policy to divide the country into zones for the purpose of reducing to a minimum the rail haul from the manufacturing and producing centers to the nearest sea port. The operation of such a program would in itself effectively eliminate the Pacific Coast from any further benefits arising from the transcontinental export rate and divert the traffic to the nearest sectional port. It would seem therefore that in order to retain their foreign steamship lines, the trend of events would, as already stated, compel the Pacific Coast states to exert all their energies towards the development of an export trade in local products and manufactures.

"Out of evil oftimes cometh good." It may be that the enactment of this shipping law will open the eyes of Pacific Coast business firms and individuals to another menace—the enemy within their own gates. It is possible, but we do not think it is at all probable that the evil features of the Jones Act might throttle the development of San Francisco as a great centre for Pacific Coast trade. A Californian, proud of his state, draws this picture of what might happen!

"Instead of developing into a great centre for Pacific trade, San Francisco may dwindle to the status of a second-rate port dependent for its prosperity upon local and regional exports. The many export firms making San Francisco their headquarters for the sale of Eastern manufactured products to South American and Asiatic markets will be forced to withdraw and return to the East, nearer the ports of shipment. The ultimate effect of this

legislation must therefore tend to make the Coast States more and more independent of the sest of the nation in foreign trade

and broaden its outlook on Pacific questions.

"THROWN BACK UPON ITS OWN RESOURCES TO MAINTAIN AN EXPORT TRADE AND RETAIN A FLEET FOR ITS HARBORS, THE PACIFIC COAST STATES WILL BE DRAWN INTO MORE INTIMATE AND DIRECT COMMERCIAL RELATIONS WITH THE NATIONS OF THE PACIFIC, ESPECIALLY WITH CHINA AND JAPAN. AS THE MARKET FOR PACIFIC COAST PRODUCTS EXPANDS IN JAPAN AND ITS ECONOMIC DEPENDENCE RESTS LARGELY UPON RETAINING THE GOOD WILL OF A GOOD CUSTOMER, THE REST OF THE NATION WILL HEAR LESS AND LESS ABOUT THE JAPANESE DOMINATION OF THE PACIFIC."

"If such should be the ultimate effect of the present law, it will help to bring home to the people of the Coast the lesson that has been learned by those of the East, who have found in Japan their best customer for the products of their mills and factories. Any agitation that may divert or destroy this growing trade will result in great hardship to many Eastern communities. Any dislocation of this trade, as a result of the Jones Act or California state legislation can only bring commercial disaster to San Francisco. When California has to stand on her own feet and her manufacturers and producers are compelled to turn to foreign fields for the sale of their surplus products, and Japan becomes one of their best customers, then, and only then, will her people begin to understand the viewpoint of the East towards this troublesome problem."

That is well worthy of consideration. We should hate to indorse any prophecy of ill-fortune for the Golden City of the great Bear State; yet misfortunes often prove blessings in

disguise.

### Japan Seeks China's Friendship

A M A

THE cartoon appearing on the opposite page illustrates the chief facts of the Far Eastern situation as they present themselves, to-day. Japan is earnestly and sensibly seeking the friendship of China. China's best American friends are urging her to settle her differences with Japan. The young Filipino commonwealth has a keen and common-sense interest in the turmoil that is going on up North. Meanwhile, more selfish groups are busy behind the back of the Sick Old Man of the East. Our Chinese cartoonist puts words into the mouth of Uncle Sam that might well be uttered by the present tenant of the White House. While Mr. Chow Tzu-chi is in the United States there will be an opportunity for straight talk with a practical Chinese official who has earned note as a good listener. If Mr. Wilson will not, Mr. Lamont might do the talking. Now's the time!

### Without a Hitch!

MR. CECIL HARMSWORTH, Under-Secretary for Foreign Affairs, replying to an interpellation in the House of Commons on July 29, said that "the government could not accept the suggestion that they should influence Japan to annulall the leases and concessions in Manchuria since July, 1911. At the identical moment the Japanese Diet was nearing its closing session; and, despite a strong opposition in both Houses, the government forces obtained its approval to the plan for increasing the capital of the South Manchuria Railway Company by Yen 240,000,000. The Japanese government owns half the shares in this enterprise, and will pay for its half of the new capital (amounting to Yen 117,156,000) by accepting full responsibility for the repayment of principal and interest of the £12,000,000

### The Folly of Asiatic Enmity



Uncle Sam—"Shake hands and be friends! Give a Good example to my child!"

Japan—"Yes, China, let's be friends and work with Uncle Sam for the welfare of Asia!"

China—"Help me, Sam, I'm a very sick old man!"

'Young Hopeful' Filipino-"See, Uncle, they've their hands in the old chap's pockets!"

(The above cartoon is a Chinese conception of the present Far Eastern situation. It was drawn for THE FAR EASTERN REVIEW by our Chinese artist, Mr. P. N. Chien.—Editor, F.E.R.)

British loan to this railway; or, in other words, it will pay up

its quota of new capital by paying off the British loan.

The significance of this little deal will probably be lost upon Americans and Chinese who still dream that Japan can be ousted from Manchuria. The above transaction makes the loan a purely political obligation between Allies, which the Japanese government may (if convenient to Great Britain) repay at any time by a simple transfer of government gold reserves held to its credit in London. Britain may need this money at any time for urgent reconstruction purposes, and she now knows where she can place her hands on \$60,000,000 when she needs it.

In the meantime, the railway urgently requires funds for much needed improvements; and, pending the sale of the new shares to the public, the Industrial Bank of Japan, the Yokohama Specie Bank, the Bank of Taiwan, the Bank of Chosen, the Mitsui Bank, the Mitsubishi Bank, the Fifteenth Bank, and others, will underwrite a new bond issue for the railway to the amount of Yen 15,000,000. The bonds will be offered to the public at 95, carry interest of 7 per cent., and will run for three years, or until August 20, 1923. All this is simply another little reminder that, despite newspaper agitation, the Anglo-Japanese Alliance is in perfect, smooth-running order. It works without a hitch.

### The Standardization of Steel

THIS is the day of standards. They are standardizing everything from man to money, from fauna to fox-trot. Standards are good and useful things in their proper place.

Standardization has its uses in China. It might have its

abuses. Take the matter of standardizing steel supplies.

To require that steel supplied to fill government contracts shall be of the "best American" or "best British" standards is right and sensible. The buyer is entitled to protection. The steel men of the United States and Great Britain and Japan desire nothing more than the proper protection of purchasing China.

It would, however, be folly for China to try and set up arbitrary steel standards on her own account. To insist that steel supplied shall be made to a set formula, ignoring the manufacturing conditions of America or England, or other markets, is to limit, to China's loss, her possible sources of supply. For years to come, China will not be in a position to supply her own steel needs. She must go out into the world's markets and buy as best she can. She should get a square deal, and her officials know that they can always depend upon getting that from the great steelmakers of the United States and England, and Japan. Big business takes pride in its products.

As between the more ductile steel fabric favored by the American engineer and the more rigid fabric preferred by the British, there are opinions and differences of opinion. Advantages can be, and are claimed for each school of thought. China is not in a position to sit as arbiter on a question that she could not decide without penalizing herself as purchaser. She is wise to insist upon the best British or American standards, but she should let it go at that. Manufacturers are not going to disorganize their milling methods and recast their entire manner of fabricating steel merely to snatch an order for some minor part tagged with arbitrary Chinese standardized specifications. The broader policy is always the better way.

### That Alien Labor Problem

IN order to cut operation costs, Japanese shipping companies are utilizing Chinese labor where that is possible aboard their ships. So the seamen of Kobe and other ports have got together and arranged a protest to their government, demanding certain restrictions upon the employment of alien labor.

This incident illustrates a phase of the race problem to which The Far Eastern Review directed attention several years ago. The relationship between the Japanese laborer and his cheaper main-

land Asiatic cousins is precisely the same as that which rules between the native sons of California and the Japanese entering that state. As the white man cannot compete with the Japanese, so the Japanese cannot compete with other Asiatics. Standards of living turn the scale against them.

Thousands of Japanese laborers who flocked into Manchuria in 1905, in the wake of their victorious army, were forced to return home. They were driven out by the competition of the sturdy Manchu. The South Manchuria Railway had to discharge its Japanese laborers and to employ Chinese. The recent slump in Japanese shipping has led some Kobe, shipowners to reduce expenses by a cut in wages, and to do this, they are employing Chinese. The Japanese seamen now ask their government to restrict the employment of alien labor on Japanese-owned steamers. Human nature is, after all, much the same, the world

### The Eighth Wonder of the World

Gentlemen, you will gaze and behold the eighth wonder of the Ages, the Ponderous, Prodigious, Padlocked, Prohibited Portal, Policed by Parties of Persistent Patrolmen, Pertaining to and Performing under the orders of the Parliament of Japan!"

And the personally-conducted parties of peripatetic American legislators, chaperoned by ex-American barkers, stand agape and amazed at the picture painted for their express benefit

before the entrances to Dalny and Tsingtau.

What a pity that the province of Yunnan lies so far off the beaten tracks of the globe-trotter, the wandering journalist and the personally-piloted parties of American statesmen! Here they would behold another beautiful door painted in bright red, white, and blue, patrolled and policed by a pretty poilu, through whose front garden one has to pass to reach the door beyond. Beautiful Door, that to Yunnan, a marvel of Gallic workmanship, a testimonial to the painstaking thrift of the Frank! It has been a long, long time, since our attention has been turned to that Yunnan Door. The Yomiuri of Tokio, however, reminds us that it is still there, closed as tightly as ever it was before the Great War, an obstruction to Japanese and other foreign trade with the people of Southwest China.

The Yomiuri takes advantage of the appointment of Vis. count Ishii as Ambassador to France to invite his attention to

this little matter. It says:

a few words concerning our commercial relations with French Indo-China. The question of concluding a treaty of commerce with that country has been pending since 1907. France adopts an ultra-protectionist policy in Indo-China, and Japan and other non-treaty countries are subjected to the highest tariff rates. Even the Yunnan railway is utilized to serve the purposes of the French protectionist policy, and the trade with Yunnan in monopolized by the French to the exclusion of the Chinese. Such an anti-foreign policy is contrary to the spirit in which the question of international railways and waterways was discussed by the League of Nations and also to the principle of abolishing spheres of influence in China on which the new Chinese Consortium is founded.

"The question of concluding a treaty of commerce with French Indo-China was first proposed when Viscount Ishii previously represented Japan at Paris, and when he was foreign minister in 1916 he assured the Diet that the treaty was sure to be concluded. In view of his special connections with the matter, it is to be hoped that he will see to it that the object in view is

realized."

Our good friend, the Yomiuri, seems to forget that to the rest of the world, the only simon-pure, original, dyed-in-the-wool Door Slammers, are his own energetic people, and the only wonderful Shut Doors (trotted out for the edification of Americans) are the entrances to Manchuria and Shantung. The Door to Yunnan is closed, but what of it? Who dares protest? The Door to Kwangsi is closed, banged to and locked secretly a

month after the outbreak of the war. Who wants to go into Kwangsi, anyhow? The Door to the Roof of the World is closed, but only some Arctic enthusiast or wandering missionary would want to brave the rigors of that elevated refrigerator. No sensible human being has lost anything in Thibet. The Door to Canton is closed. It appears to be wide open, one of those funny optical illusion sort of affairs. But just let Japan or any other joker go fooling around, lending that Kwangtung government the millions required to carry out Dr. Sun Yat-sen's schemes to convert Canton into a deep-water port and railway terminus, and they will soon learn all about the mystery attached to that Door. There is a little Side-Door into Szechuan, which some American oil or mining engineer will one day "discover" and then we will hear a most terrible howl. There is a Door, a Great, Big, Whale of a Pailou to the north of Peking; past the Ming Tombs, the other side of the Great Wall, out beyond Kalgan, up the pass to the grassy plateaus of Mongolia. It is never trotted out for visiting Americans. It is invisible to all who do not know of its existence and who in the good old days tried to pass through. Then, to their dismay they found about two hundred million Cossacks banked up with fixed bayonets and massed batteries to obstruct the passage. Some Door, that! China never worries about it. She knows all about those Cossacks massed out beyond the prohibited pass. She does not try to get through but stays huddled behind the protection of the Great Wall, which was originally built to keep these northern barbarians out of the Flowery Kingdom, Attention is rarely invited to this Door, except when China finds some blind and optimistic American, whom she uses in the hope that he will call upon his countrymen to help him pass through the hordes of Cossack gate-keepers. If the personally-conducted American Congressmen will call upon the State Department for certain correspondence of the month of October, 1916, they will learn all about that Door.

Doors! Why Man Alive, China has more old, uncharted and forgotten secret Side-Doors and closed Front and Back Doors than you can shake a stick at. They can be accurately located if care is taken to explore a little before starting out to bull a way through. It's funny, but it's true; only Americans stumble into these cul-de-sacs with a Forbidden Door at the end, and then when they gets their fingers squeezed in the jamb, they yell out to High Heaven and Uncle Sam to come and pull them out.

Americans are very comical about China. Japan has opened the Door to Manchuria and handed over the key to Mr. Lamont. America is now one of the Door Keepers to that corner of Far Cathay, right in the middle of the most interesting hot-bed of possible strife; the cock-pit of the Orient. Japan is waiting to return the key to Shantung, if the owner will pluck up enough courage to receive it and assume the necessary obligations to maintain law and order. This is going some for Japan, and is what evidently moves the Yomiuri to invite attention to that red, white and blue portal on the banks of the Red River. Doubtless. the Yomiuri thinks that the other fellows who taught Japan all about the trick of Closing Doors should also surrender their keys to Mr. Lamont. When the leader of the new Consortium has all the various big and little keys and the odd pad-locks, bars, bolts. hinges and other working parts of these old doors safely stowed away and labelled in his museum, it will be a wonderful day for China, for Japan, for America, for the world.

Something to the Yomiuri's wail, after all! Keep hot on the trail of those Door Slammers, Brother! In the meantime, it will be interesting to follow the side-efforts of Viscount Ishii in Paris to dismantle la Grande Porte du Fleuve Rouge.

### Japanese Steel Trust?

THE "Jiji" says the iron and steel industry suffered heavily I in the recent crash, and that temporary loans are not sufficient to restore its prosperity. It urges the amalgamation of all the Japanese steel plants into an huge corporation (including the government plant at Yawata), as the only way to reduce expenses and compete with foreign manufacturers. The cost of

production in Japan is estimated at \$35 to \$70 per ton, which prohibits competition with imported steel. It is feared that America will use Japan for a dumping ground and flood the market within a few years. The "Jiji" adds that the home industry cannot expect to continue its war-time prosperity and sees no other way to meet foreign competition than to cut down costs by amalgamation, and concludes by saying that this is no time for talking. Do it now!

The Japanese government, however, does not appear to be considering any scheme for amalgamation. The Diet has just approved an increase of Y.48,000,000 in the maximum limit of capital to be advanced by the treasury to the government steel

works. The former credit was Y.12,000,000.

Following closely on the heels of the movement for the amalgamation of all the Japanese iron and steel manufacturers into one huge trust for the purpose of reducing expenses and controlling prices, comes a similar move for the consolidation of the shipbuilding plants into a compact organization controlled by several of the most important companies. The war boom operated in Japan as in the United States, giving birth to nearly 150 shipbuilding companies, the majority of which were small yards for the construction of wooden vessels. These have been weeded out since the armistice, leaving about 30 yards equipped for steel construction, of which 22 are continuing operations. The general slump in shipbuilding has affected these yards, and as there is little immediate prospect of new orders they must suspend or go out of business. New private construction will be limited to the larger Japanese subsidized lines, adhering to a definite building program, and these orders will be distributed amongst the larger and better equipped yards. The new naval program has brightened the outlook somewhat for the larger plants, but made the position of the other companies most difficult. It is now reported that several of the leading companies, such as the Mitsubishi, Kawasaki, Ishikawa, Asano, Uraga, Yokohama, Harima, Osaka and Fujinagata, have entered into negotiations with their smaller competitors for the purpose of purchasing or amalgamating their interests.

The Far East is passing through its period of readjustment, and returning to pre-war normality. The weeding out of the Japanese "war babies" will be reflected in general trade conditions, and circumscribe to that extent the activities of many mercantile houses who sprang into existence during the war as a

result of these phenominal conditions.

The proposed amalgamation, if carried into effect, will undoubtedly decrease operating expenses and costs to a minimum, and thereby cut into the very profitable business of middlemen, who have reaped fortunes during the war. Nearly all of the larger Japanese shipbuilding companies, as well as the Imperial Japanese Navy, have their own offices in New York for the purchase and inspection of steel and materials, and the desire for economy will inevitably tend to establishing direct business relations between these representatives and the American steel manufacturer, to the consequent disadvantage of many export steel concerns interested in this field.

### That Y. 100,000,000 Japanese Loan

OANS aggregating Y.130,000,000 mature in September. One is the 1915, five per cent. railway loan of Y.30,000,000 and the other the 1917 treasury notes amounting to Y.99,996,150. Both loans will be raised by the treasury on new terms.

### Japanese to Brazil

TW7 HAT appears to be a Brazilian Colonization scheme is taking form in Uyeno Park in the heart of Tokyo, under the direction of the "South American Exhibition." The government of the state of Sao Paulo is offering free passage and

\$35 travelling expenses to each head of faculty as an inducement to emigrate. Several hundred applications have been received within the month.

### A Big Enterprise Delayed By Suspicion

T is to be regretted that suspicion of graft was responsible for the rejection of the bill in the Japanese House of Peers for the creation of a \$50,000,000 hydro-electric concern to conduct the electrification of the Japanese Government Railways in the Tokyo and other important districts of the empire. Japan is leading the way in big enterprises in Asia, giving practical demonstration of her determination to keep up with the best developments in Europe and America. This project is undoubtedly one of the most important in the railway world of to-day, creating a lucrative and permanent market for heavy electrical equipment of all kinds. Although Japanese manufacturers will be able to supply much of the material required for this work, the most important parts will have to imported from England or America. The plans are too far advanced to be dropped, and it is the intention of the Railway Department to revive the Bill at the next session of the Diet.

These plans as already worked out, provide for the electrification of an aggregate of 500 miles of government railways in the Tokyo district alone, 58 of which are already in successful operation. These include the Tokyo-Sakuragicho section, 19 miles; Tokyo-Kichishoji, 14 miles: Uyeno-Tabata, 2 miles; Shinagawa-Tabata, 12.8 miles; Ikebukuro-Akabane, 3.5 miles; Yokogawa-Karuizawa, 6.9 miles. The sections to be electrified within the next five years include the Sakuragicho-Numadzu section, 96.6 miles; the Ofuna-Yokosuka, 10 miles; the Kichishoji-Hachioji, 15.4 miles; the Tabata-Omiya, 15.9 miles; the Akita-Chiba (on the Bo-se line), 23.10 miles; a total mileage of 161.8. Besides these, the Takasaki-Nagaoka section, 95.9 miles, which is now in course of building, is to be electrified on its completion next year as this line not only abounds in tunnels but is also situated near the Shinanogawa on which it is proposed to build power houses.

It is further proposed to electrify the Higashikanagawa-Hachioji section of 26.4 miles; the Hachioji-Kofu, of 13.3 miles; the Nippori-Abiko, of 19.5 miles; the Omiya-Yokogawa, 64.8 miles; making a total mileage of 164. This will make an aggregate length of 480 miles of railways to be electrified near Tokyo.

When completed, the electrified line will be one of the largest, if not the largest of its kind in the world, an example of the way in which Japan is forging ahead and commanding the respect and confidence of the great financiers and manufacturers of Europe and America, who are desirous of retaining her good-will, the one substantial basis for profitable trade.

### Japan's Trade With America

figures:—Exports to United States, Y.383,654,185; Imports, Y.577,666,936; Balance in favor of United States, Y.194,032,936. Exports to Great Britain, Y.57,495,656; Imports, Y.113,621,413; Balance in favor of Great Britain, Y.56,125,757.

### Li, Kan, and Min

Trading Company, and Mr. Kan, of the Nanchang Tobacco Works, Mr. Min Tai-chok, son of Viscount Min of Seoul, has returned from an extended business trip to America where he has established connections with manufacturers for the sale of their products in Korea. Mr. Min is not only the first nobleman but the first Korean to engage in foreign business. He encountered great opposition amongst his own relatives and people when he announced his decision to embark upon this unheard of adven-

ture, but finally he succeeded in interesting a few of his compatriots in the enterprise. Now, he is very hopeful that others will follow his example and engage in direct foreign trade. It is a sign of the times in the Orient, the first steps in a movement that is bound to extend rapidly, the awakening of the Asiatic to his opportunities. It would seem that a well financed Korean concern ought to appeal strongly to patriotic sentiment and pride and develop into a great and profitable business.

### Asiatic Sinn Fein

By Patrick Gallagher

They do. The Asiatic Sinn Fein has developed a phase that is attracting well-deserved international interest. It is one of the amazing facts of foreign life in the Far East that bitter opponents of Mr. de Valera and Mr. O'Kelly are actually allied with Mr. de Valera and Mr. O'Kelly. The most curious fact of all is that the excellent, high-minded British gentlemen who are both opponents and allies of Sinn Fein are in the finest sense sincere. A paradox of that sort merits some inquiry.

Mr. George L. Shaw, born in Ulster, Ireland—and in that smallest part of the province where "King" Carson holds court—was bred on fervent hatred of Irish independence. As a small boy, he flung his cap in the air when the Reverend R. R. Kane—admiring political enemies called him "Roaring, Ranting" Kane—declared that he would "kick the queen's crown into the Boyne" if Victoria of pious and immortal memory dared to sign Gladstone's first Home Rule Bill. The Lords and Commons of the day saved the queen's crown from this indignity by throwing out the iniquitous bill.

#### Born Into a Feud

The young men of Ulster, like the hardy youth in parts of the American Southland, are born into a feud. Sometimes, they grow out of it and above it; but the feud lives on. Young Shaw was born into this feud, on the side of R. R. Kane. Later, while "King" Carson was still aspiring to the throne of Kane, Shaw voyaged forth to the Far East. He married and settled down at Antung, the Manchurian port on the doorstep of Korea. Korea is a part of the Japanese empire. The Japanese empire is the one power in the world for eighteen years in alliance with the British empire. Korea is the Ireland of the Japanese empire—with a noteworthy qualification.

No serious, qualified student of mankind would attempt to put the Koreans on a par with the Irish. With all their faults, the Irish have contributed not a little to human progress and to the development and glory of the British empire. The Koreans are and have been for many centuries a backward, querulous people. They have intrigued with all their neighbors and at no time have they manifested an unselfish thought for any other people. Thus came they into the keeping of Japan.

people. Thus came they into the keeping of Japan.

It is a fact within the knowledge of the writer that the Sinn Fein movement in Ireland originated in the brain of a German. I have been told that he was a member of the German secret service, but that I do not know. I do remember, however, that he was very active in the organization of the Feis Ceol-the Irish folk song festival, like the Eisteddfod of Wales-that he struck the broken chords of the Harp of Tara with the intention of arousing the passion of Firbolg, Tuatha-dhe-Danan and Milesian. That most of England's present troubles in Ireland-and they are troubles to the Irish, too-have been fomented from abroad 18 a fact that will not be disputed by any impartial investigator. Mischief-makers in many lands hate to think of the greatness and glory that will come to the English-thinking people when Ireland and England and Scotland and Wales make up their minds to go forward together as equal partners in a great civilizing heritage. So they spend night and day sowing seeds of enmity between the fighting races of the British isles.

#### Enemies of England and Japan

On numerous occasions during the war, I crossed the trail of these mischief-makers. I found that the enemies of Japan in

horea were the enemies of England in Ireland and in India, and throughout the British empire. They met together, plotted together, and sometimes went to jail together. Now, this being an open season for rebellion, they parade together. Nevertheless, I don't think it is quite advisable to say to a Cork or Donegal Sinn Feiner that a Korean is just as good as an Irishman. Somebody might get hurt.

There is a house in Greenwich Village, New York, where East met West across the table of Sinn Fein. I attended one of the meetings. Including myself, there were eleven men and four women in the room. All the Asiatic conscientious objectors to orderly imperialism were present and voted. Japan and England were the chief subjects of discussion. One of the women was a returned missionary. She had a fine command of vigorous language, acquired doubtless in the course of many years spent chiefly in denouncing the devil. Like Mr. Shaw, she came of that Scotch-Irish stock which constitutes the minority opposition to Sinn Fein government in Ireland. She sat quite unmoved while an Irish spell-binder roasted Carson and boiled that carpet knight in oil. Her mind was concentrated upon Japan. Nothing mattered except the weakening and humiliation of Japan.

the table. Subsequently, the phrase was borrowed by the most active official of one of the leading missionary bodies in the United States. I have noticed, since my return to the East, that a good many pious people are thinking and talking the same way. Sinn Fein has established a remarkably respectable footing among the foreigners of the Far East. In fact, your standing in certain clubs depends upon your fervence as a follower in the Asiatic footsteps of Mr. de Valera and Mr. O'Kelly.

#### Shaw's Activities

Mr. Shaw, of Antung, has long been regarded as one of the active leaders of Asiatic Sinn Fein. His name was mentioned to me as that of an Asiatic Sinn Feiner in particularly good standing, a few days after I landed in China. So far as I could see, he made no attempt to hide his interest in the cause of Korean rebellion—the first principle of Asiatic Sinn Fein. Mr. Shaw went onto Japanese territory without a passport, was arrested and is now being held for trial. His case is a matter of intense international interest, because Shaw is charged by the Japanese with doing in Korea work along the lines followed in Ireland by Mr. Frank P. Walsh, Ex-Governor Dunne and Mr. Michael P. Ryan.

The British under-secretary for foreign affairs has admitted that Mr. Shaw was warned by the British consul. The present British foreign minister is the most famous British Far Eastern authority, Lord Curzon. His views regarding Asiatic Sinn Fein are undoubtedly similar to his views of Irish Sinn Fein. This potent fact disturbs many sincere sympathisers with Asiatic Sinn Fein. They are beginning to ask themselves questions. That is a good sign.

Sympathy is a heritage of the English-thinking peoples. The average Englishman wants to do the right thing. Americans are not less sympathetic. The larger part of American sympathy for Irish Sinn Fein is quite sincere. That it is misdirected may be equally true. That it is organized by enemies of England and Anglo-American friendship is a provable fact. The Cohalans and Devoys pull the strings. Nevertheless, it is natural for millions of Americans with Irish blood in their veins to sympathise with Ireland. Certainly, it is more natural for Americans to give a leg to Irish Sinn Fein than it is for Britons to give a back to Asiatic Sinn Fein. The call of blood counts. If Far Eastern Britons ally themselves with Asiatic Sinn Fein, they present a fine, ready-made shillelagh to Mr. de Valera and Mr. O'Kelly.

Over in England, they are getting up a monument to the late Joseph Chamberlain. He well deserves this honor. He was a great Briton. He was the greatest British colonial secretary of all time. As colonial secretary, he did much to advance the interests of England in the Far East. In public and in private life, he was a forceful champion of Anglo-American fraternity. He made his famous "Hands Across the Sea"

speech after comparing notes with his friend, John Hay, at that time American ambassador in London. England could do with a Joseph Chamberlain, to-day. And both Englishmen and Americans would do well to seek ways of working together, and with their real friends. Sinn Fein, in Asia or in Ireland, is not the friend of England or America, or of orderly human progress.

### American Trade Possibilities in India

The following report has been issued by Mr. E. Verne Richardson, U.S. Consul at Karachi, India:-

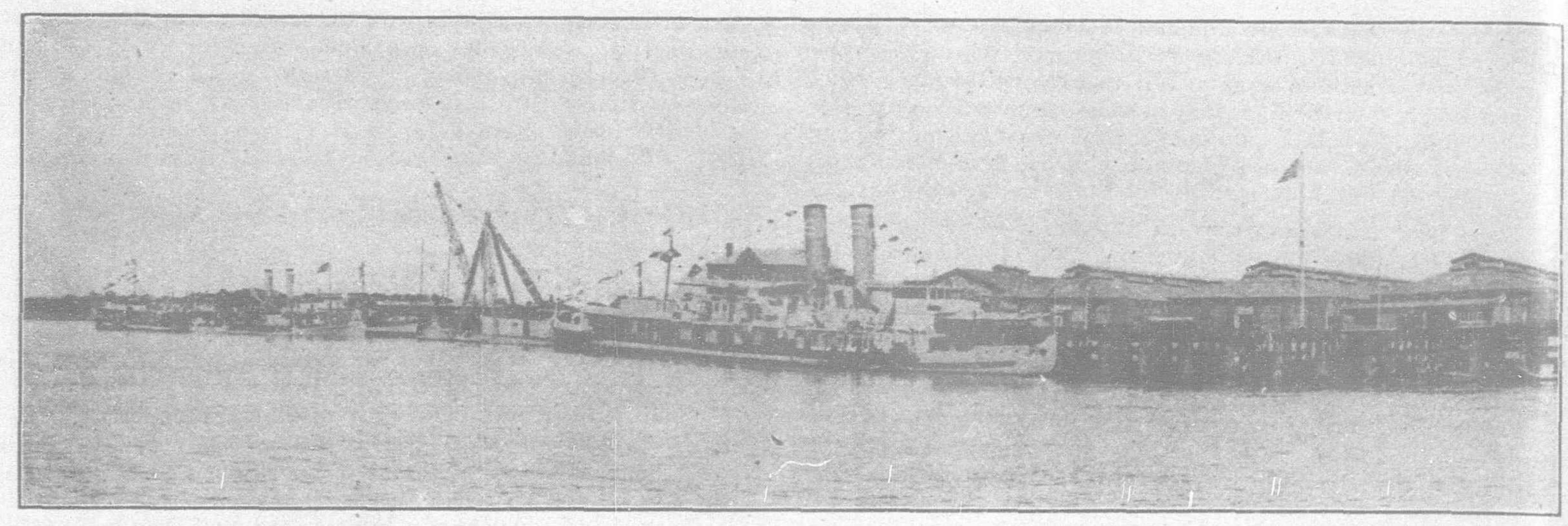
"That the present is a time of unusual opportunity for America to achieve great commercial pre-eminence in India becomes more and more apparent to the writer as his knowledge of the country and its people increases. In comparison with such older, larger, and better known Indian cities, as Calcutta, Bombay, and Madras, Karachi is perhaps, of but secondry importance. It occupies, nevertheless, a unique position in that it is the natural point of importation and exportation for the whole northwestern portion of the Empire including Baluchistan. The provinces of Sind and Punjab, the north-western provinces, and in normal times, Afghanistan, have in Karachi a natural gate-way to the western world. What this vast interland represents in the direction of commercial possibilities cannot be adequately conceived without a full understanding of both its consuming and producing capabilities. That it represents, however, an enormous field for exploitation is a fact which admits of no contradiction; and that the United States has here a most promising prospect.

### The Native Merchant and his Methods

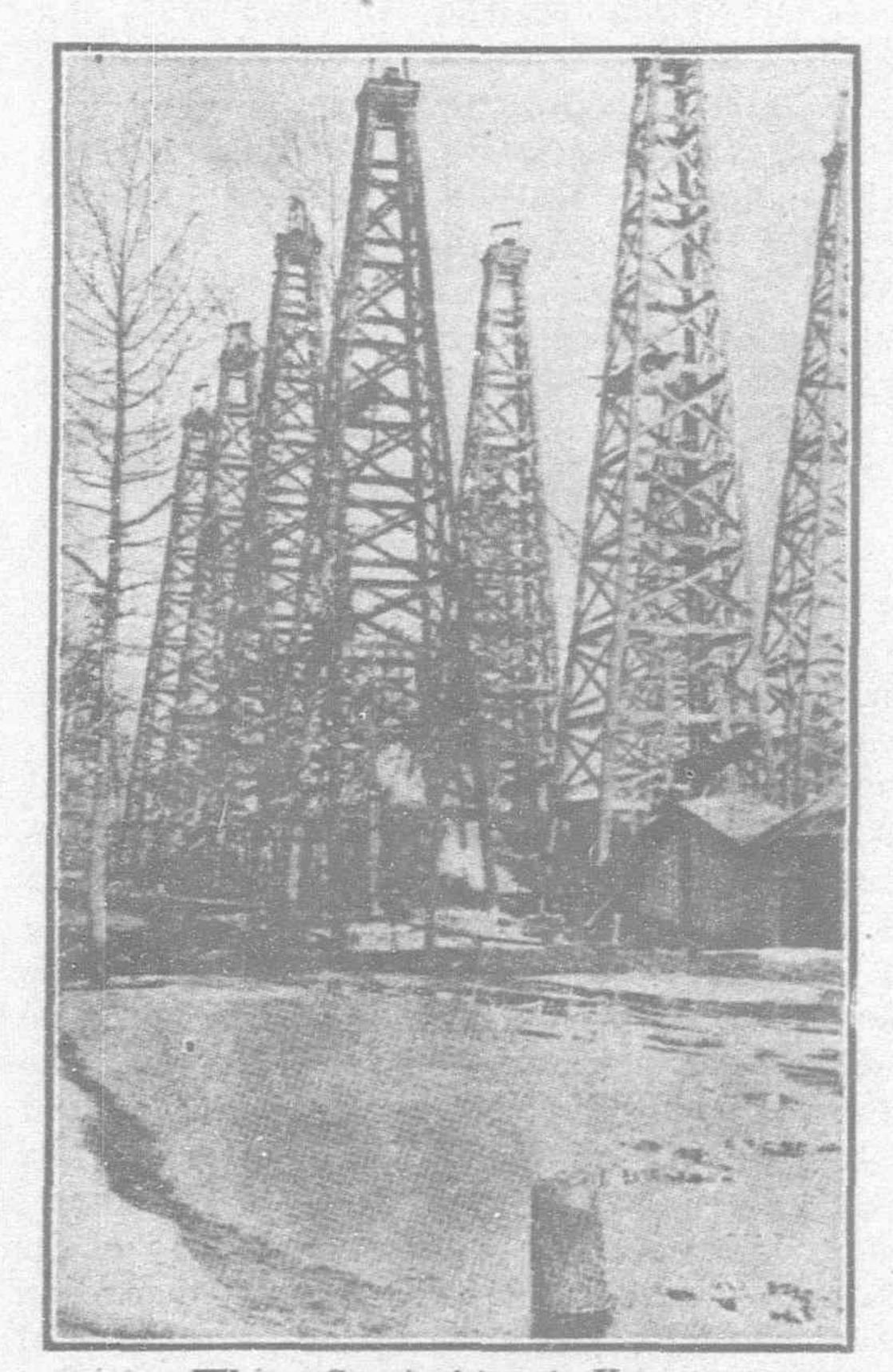
"As the native merchant is the dominating factor in the economic scheme in India, it is from him that the foreign supplier, be he manufacturer or general exporter, will derive the principal share of profit which may accrue from his Indian dealings. In order to satisfy himself as to the feeling among the native merchants in Karachi towards American goods, the writer during the past few days has interviewed several representative concerns and has received assurance, in every case, that there is not only no prejudice against, but rather a murked preference for, the products of American mills and factories. The abundant resources and the resourcefulness of the United States and its industries, its peculiarly favorable present position in respect to facilities for prompt deliveries, the comprehensiveness of its commercial activities, the liberality of its views regarding technical and mechanical novelty, and the recognized excellence of those of its products with which this country is already familiarcanned goods, motor vehicles, toilet preparations, typewriters, cash registers, sewing-machines, tools, hardware, cameras, lanterns, oil stoves, and textiles, in particular-are all matters to which favorable reference was made, and there need be no hesitation in saying that the Indian merchant to-day is fully prepared to welcome many now unfamiliar American articles, provided they be properly introduced to his notice.

### Methods of Introduction

"How much depends upon the methods of introduction employed, only one who knows the Indian merchant can appreciate. He is a most approachable person, provided he be given the recognition and consideration one gentleman has the right to expect from another. He must be met on a footing of full equality and much prefers to deal with principals. Therefore the salesman who comes to India should be a man in whom his firm has sufficient confidence to empower him to enter into contracts, to fix definitely all terms of credit, to give the final word on prices without reference to the home office, and, in a word, to be the actual seller of the goods. With such a one the Indian merchants will be frank and straightforward."



THE STANDARD OIL CO'S



Where Competition is Keen

The sight of oil derricks almost on top of one another is characteristic of American oil fields where competition is bitter. A pool of oil is shown in the foreground

The slump in American shipbuilding has been caused, not so much by return from war-building to peace-building as by uncertainty regarding the value of official American pledges that proper protection will be afforded the American shipping and shipbuilding industries. Confidence has been impaired.

To remove that uncertainty (and not without due regard to partisan political exigencies during a Presidential year) the Jones Bill was hurriedly enacted in the first week of June. A storm of disapproval, domestic and international in its source, has caused official Washington to suspend the enforcement of at least the chief protective feature of the Act until January 1, 1921. More uncertainty; and, consequently, the probability of a further decline in American marine construction. We must "wait and see," "watchfully," of course, and with a fraternal eye upon the constructive candidature of Senator Harding.

Meanwhile, oil contests with ships for precedence in international importance. The titans are scraping the earth and smelling the soil for oil. China has gone into the coal export business, selling at a good profit as far afield as Denmark.



# TO SPEED PACIFIC

# Titans Contest for the Commercial Control

The New American Shipping Act—Its Good Purpose
Been Tendered a Sword? "—Filipino
and a Pot of Prussian Paint Flung



must have more of them.

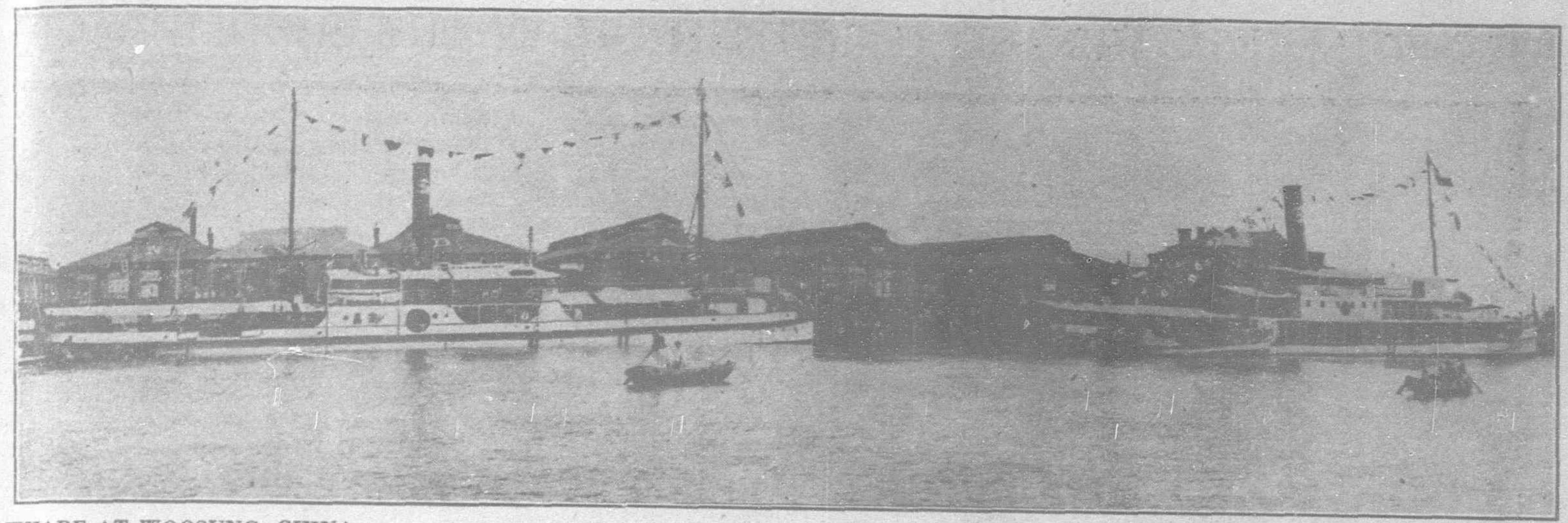
T last, we have the ships to carry American Far Eastern trade. Pictures, plans and full details of the new oil-burning freight and passenger steamers allocated to the Pacific and Far Eastern routes, after an American mercantile marine crusade that has ebbed and flowed for more than three-quarters of a century, are given in this number of The Far Eastern Review. We need these ships. We

Lloyd's last figures show that, during the quarter ended June 30, British tonnage under construction advanced by 184,000 tons; British dominion construction advanced by 36,000 tons; while American construction declined by 467,000 tons.

British shipbuilding (exclusive of dominion shipbuilding) increased by 60 per cent. during the fifteen months from January 1, 1919, to June 30, 1920. During the same period the American output slumped by one-half. These are British figures and dependable.



Searching for Oil in China. Standard Oil Co's Prospectors



WHARF AT WOOSUNG, CHINA

### AMERICA'S COMMERCE

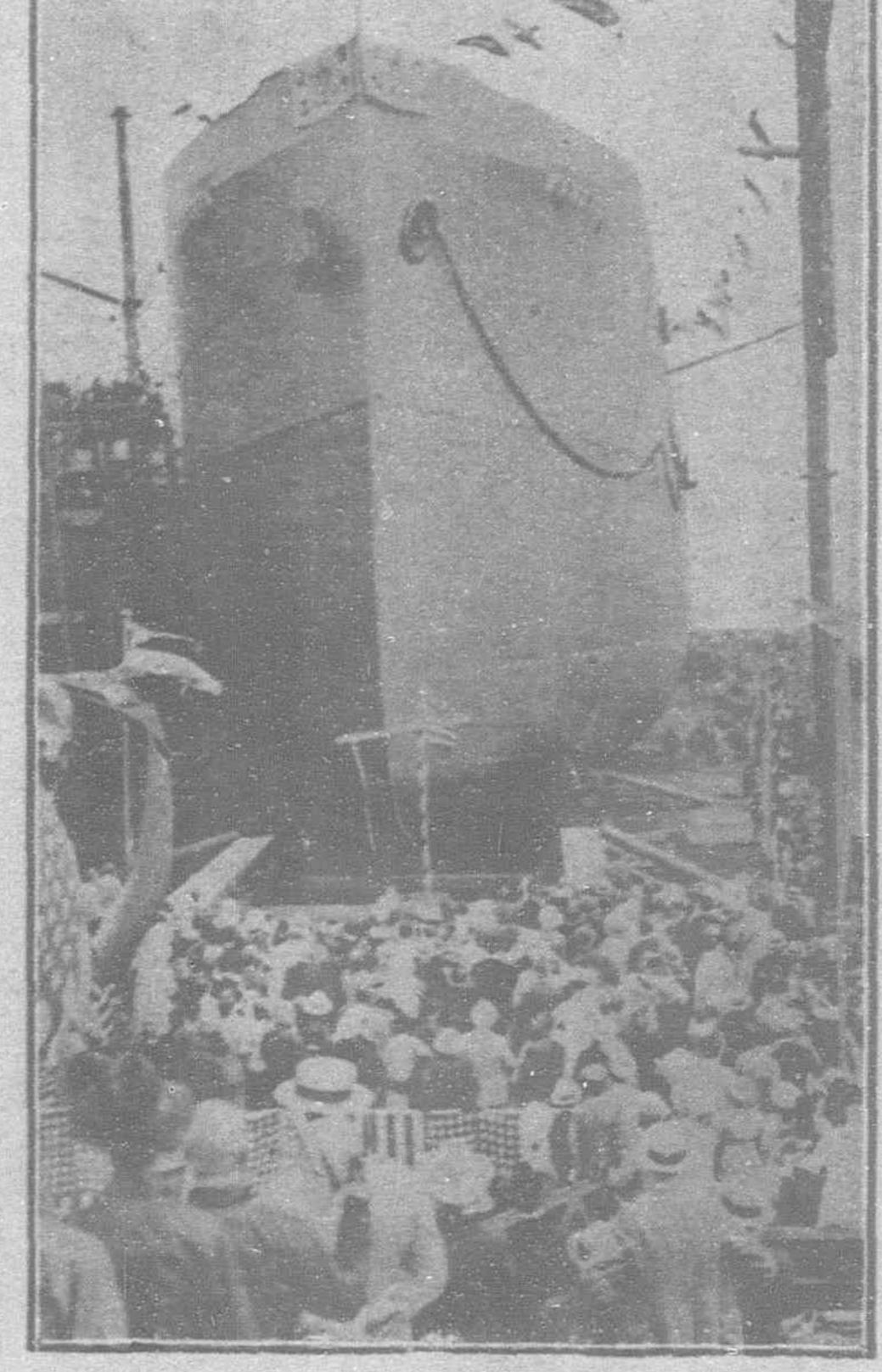


# World's Oil Fields and the of the Pacific

and Bad Features — "Has Pacific Coast Trade Nervousness — Unseemly "Jap-Slapping" in the Face of the American People

Chinese and Germans are known to be quietly beginning extensive plans for the development of China's vast coal reserves. Coal, uncrowned by oil, the new king of bunker and boiler, is still hungrily sought after and particularly by Germany, whose output has been tied up (on paper) by the paper peace and the penscratching of Versailles. "A scrap of paper" started the war. A paper peace ended the armistice—but not the fighting. The onward march of Bolshevism threatens to produce a new upheaval, of which Germany may not be merely a passive observer. As can be seen from the admirable sketch map, reproduced from the London Graphic, the Bolsheviki are reaching out to strike with their talons the valuable oil fields of the Middle East. Oil's the king, oil's the thing.

America is girding the world with oil fuel stations to feed the hungry engines of the new oil-burners destined to carry American trade across the Pacific and the other oceans of the earth. In this number of The Far Eastern Review will be found the plans of the United States Shipping Board, the maps indicating



Launching an S. B. Freighter in China

Two of these ships have been completed and two more are approaching completion at the Kiangnan Dockyard, Shanghai. These are the largest vessels ever launched in China

the fuel stations, the world's potential oil-fields and some interesting pictures of tank installations. Control of the oil supply means control of the mercantile marine. Thus, we are in the midst of an oil war of huge proportions.



The future peace of the vorld depending chiefly upon full, frank and friendly cooperation between the United States, England and Japan, concern amounting to alarm has been aroused by evidences that these three great powers are being forced into positions of such intense commercial rivalry that a triangular contest might be made inevitable. Thus, at a stroke, and in cynical commentary upon the bankrupt but much-advertised league of nonsense, the effective force of the world's only possible powers for peace is being cancelled-out. Is the contest worth the price?

It is difficult, if not impossible, to place the responsibility for the present situation. One of the chief causes, undoubtedly, is a present excess of acute nationalism—a sad reflection upon



Transporting Boiler Over Rough and Roadless Country

### THE BOLSHEVIK MENACE TO BRITISH OIL IN THE MIDDLE EAST



From the "Graphic," London

The Bolshevik menace is gradually extending in the Middle East. Following the seizure of Azerbaijan and the appropriation of Baku, with its invaluable oilfields, have come the bombardment and occupation of Enzli, a Persian town, and the capture of Denikin's Caspian Sea Fleet, which we interned there. This aggressive measure was a gross violation of international law and a definite act of war against Persia. The British troops at Enzeli were forced to retire to Resht, a town about thirty miles away, where they remain for the present, and from which the route back to Baghdad by Hammadan and Kermansha—a very trying one, is about 500 miles long. Altogether, the prospects in this sphere, an approach to the Persian oilfields and our Indian Empire, are anything but satisfactory.—The Graphic.

the shifting sands of internationalism whereon the builders of the league of nonsense laid the foundations of their utopian structure. History teaches us that wars inevitably leave in their wake attacks, more or less serious, of nationalism. It has been contended by historians, including Mr. Wilson, that this normal effect of war is one of war's chief civilizing virtues. Certainly, it has had its uses. It was obvious to every cool-headed and intelligent observer of the Conference of Paris that unless the peace-making produced a concrete working agreement between the victorious powers, and particularly between the two great Anglo-Saxon powers and the one and only Asiatic power, the result would be not a peace at all worthy of the name but an armed truce, a menacing truce, under cover of which dangerous forces would divide the victorious powers and pave the way for a worse war-an upheaval of even more staggering proportions. So strong was this opinion, and so deeply seated in the minds of Mr. Wilson, Mr. Lloyd George and Mr. Clemenceau, that, as THE FAR EASTERN REVIEW can state upon the highest and direct authority, it was the decisive factor that caused the Council of Three to adopt Japan's settlement of the Shantung issue. President Wilson sent a personal message to the writer on the night of April 30, 1919, making this clear. The British and French premiers confirmed the President's statement of the case. This fact should be borne in mind when visualizing the present situation of the oil and ships controversy and attempting to gage the probable results.

The financial, economic, railway, ports and waterways commissions created by the supreme council of the conference-to put it more accurately and more bluntly, by Mr. Wilson, Mr. George and Mr. Clemenceau-advertised acceptance of the truth that, under modern conditions, political concord depends upon commercial concord. Unfortunately, from the very outset, the ablest leaders of American, British and French finance and commerce were hampered by lack of team work within their own delegations. The professionals of Old Diplomacy in Europe, and the "amateur outsiders" who overshadowed the trained brains quartered at the Crillon, bamboozled their chiefs and so muddled the proceedings that concord was shot to pieces and amity between the victorious powers torn to shreds. The oil and ships controversy is the illegitimate child of fatuous liaisons carried on against the vigorous protests of those who sought a genuine peace and knew how to bring it about.

The contest over oil has already touched China. It is certain to be a factor in the proceedings of the forthcoming Chinese consortium conference. It has a direct bearing upon ominous reports from many parts of China—the intrigues of the South-Western secessionists, for example. China's oil reserves will not be overlooked by any of the competitors. They cannot be ignored by Japan. Thus, British-American oil rivalry and the Jones Shipping Act must be examined from the standpoint of legitimate Japanese self-interest.

Against the cabled charge that British troops have ejected from Palestine oil scouts sent out from Jerusalem by the Standard Oil Co., that "the British lion is scratching the earth for oil," that British statesmen like Mr. Bonar Law have precipitated the present situation, goading the American government and American oil kings into retalliatory action, must be set the fact that we have enjoyed possession of over 60 per cent. of the world's oil production, while England possessed an admittedly small percentage. Sir Auckland Geddes claims that England had but five per cent. and was therefore bound to protect herself. It is a convincing argument from the ambassador of a nation accustomed to base its defence and prosperity upon sea power. So long as coal was king of bunker and boiler, the British could afford to ignore, politically, the American control of oil fields. That is no longer the case. Now, oil power means sea power; and sea power, more than ever, is world power.

### Why Oil is Displacing Coal as Fuel for Ships

The following actual experience explains why oil is displacing coal as fuel aboard ship:—

One of the steamers of the Hawaiian-American Steamship Company of New York, the Arizona, sailed under coal fuel from Philadelphia, via the Straits of Magellan, to the Pacific Coast and thence to Hawaiian ports and back. Afterwards she was equip-



Prospecting for Oil in a Shensi Sedan Chair

ped with oil burners and made a second identical trip. With coal fuel the voyage took 186 days and with oil fuel 161 days. The time saved in the trip, was 25 days, 18 days through increased speed and 7 days through quicker bunkering. The cost of victualing the men was reduced \$4,813; expenses were reduced \$12,500; through the shorter trip, disbursements at fueling ports were \$1,000 less and \$1,275 was gained in revenue from extra freight space. The total gains and savings were \$19,568, equal to an increase in net profits of 20.1 per cent.

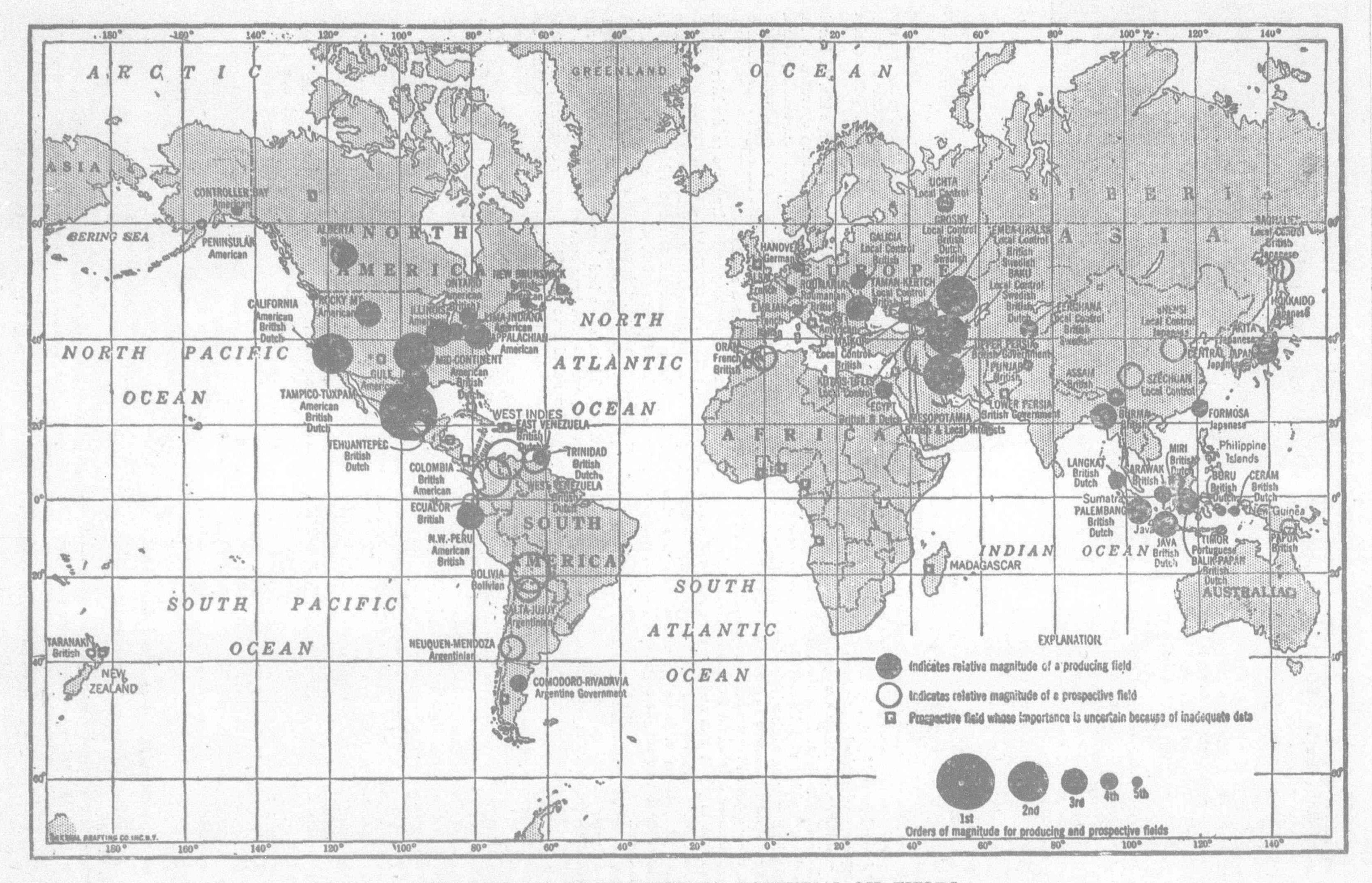
"The most important result of this test says Mr. A. Percival," is that it brings to light the fact that a ship operated by fuel oil returns to its home port sooner than its coal burning competitor and is therefore in the position to clear for the next voyage that much sooner and have 25 days' gross earnings to her credit before the coal burner can earn a dollar.

"Decreased operating costs alone are so decisive as to make the adoption of fuel oil for ship propulsion imperative for it means that vast sums now practically wasted will be turned into net profits. Take International Mercantile Marine for example: In the year before the war, 1913, which may be considered a normal year of ship operation, this company earned a total of \$49,000,041 Its operating expenses were \$40,478,000 and its net profits \$8,522,000. If its ships had been equipped with oil burners its operating costs would have been at least 20 per cent, less and its net profits would have been \$16,627,000 as compared with \$8,522,000 actually shown. The International Mercantile Marine has installed oil burners on two of its big ships, the Finland and the Kroonland, and is getting results in line with those just described.

"What the oil burner can accomplish aboard ship far surpasses what it can do in land industrial plants. For that reason it is realized that ship owners will outbid all others to procure oil fuel.

"This opens up vast possibilities for the group of nations which has possession of the sources of fuel oil. The potential market for oil is far beyond the present productive capacity of the world, and that means unparalleled opportunity. How great this potential market is can be figured from the tonnage and the requirements of a given ship. It is known that it requires 112 tons of oil to propel a 2,200-ton ship one day. The world's mercantile marine will soon exceed 50,000,000 tons. It would therefore take 600,000,000 barrels of oil to propel the world's entire mercantile marine for one year. (To a ton of oil there are a fraction more than six barrels). At the present time new contracts are being made at the rate of \$2.50 per barrel. This means a potential market of \$1,500,000,000,000 a year. No wonder Mr. Long says, 'We are on the eve of tremendous opportunities.'"

In the Pacific carrying trade, the up-to-date tanker lowers freight costs. Vegetable oils are leading American imports from the Orient; fuel, illuminating and lubricating oils are leading exports. A large part of the Oriental vegetable oils now entering American Pacific Coast ports is being carried in deep sea tanks of the United States Shipping Board vessels instead of tin containers. The steamships Wheatland, Montana and Endicott of the Pacific Steamship Company's fleet recently arrived in Seattle with bulk cargoes of 1,000 tons of soya bean oil each.



THE CONTROL OF THE WORLD'S POTENTIAL OIL FIELDS

This map was prepared by the United States Geological Survey to show the estimated and comparative oil fields.

### U. S. Shipping Board's Fuel Stations Girdle the World.

American steamships can soon make a circuit of the world without the need of taking fuel at other than American-owned fuel stations. This applies to vessels steaming east from the Atlantic Coast or west from the Pacific seaboard.

The as yet unwritten history of this accomplishment dates from the time when war conditions developed an acute situation in the world's coal supply. During the early stages of the war, Great Britain put into effect a system of bunker license as a necessary military measure. The United States Shipping Board realized that after-war conditions might develop a situation with respect to coal supplies which would dictate the necessity of a Cape Verde Isl .- Upon establishment of permanent station modified application of bunker license at British stations. In that event American ships would have been at a serious disadvantage unless immediate steps were taken to assure

Brest, France .-

3 tanks, total capacity 165,000 barrels operated under special agreement with French Naval authorities.

UNDER CONSIDERATION.

Ponta del Cade. - Wooden tank barge Wasagya, capacity 25,000 barrels: serving as temporary bunkering station until negotiations now in progress to secure concession for permanent station are completed.

Azore Islands tank barge Wasagya to act as temporary station at Cape Verde Islands.



STANDARD OIL TANK AT PUKOW, CHINA

unrestricted operation of these ships in the world's trade. To Bizerta, Algiers. - Capacity 3 tanks, total 165,000 barrels. accomplish this it was necessary to have oil burning steamships, instead of coal burners, with a large steaming radius, and so far as practicable this to be fixed at a minimum of 10,000 miles. The British order of September 29, 1919, justified these apprehensions. The U. S. Shipping Board was ready for the emergency.

The next task was to find suitable places for the establishment of fuel stations along the trade lanes or adjacent to them. At the Panama Canal, the turn at the world's cross roads, facilities already existed and only required to be amplified.

To take care of the various world trade routes the following fuel oil stations have been placed in operation:

St. Thomas, V. I.- 2 tanks, total capacity 110,000 barrels. Station operated by United States Shipping Board.

Station operated under leasing arrangement with Societa Italo-Americana Pol Petrolio.

Constantinople.-

Capacity 3 tanks, total 105,000 barrels. Standard Oil Co. of New York.

Colombo.

Capacity 3 tanks, total 165,000 barrels. Leasing arrangement with Standard Oil Company of New York.

Shanghai .--

Capacity 3 tanks, total 165,000 barrels. Leasing arrangement with Standard Oil Co. of New York.

Capacity 2 tanks, total 110,000 barrels. Station erected and operated by Shipping Board.

Honolulu.—

Capacity 2 tanks, total 110,000 barrels. Station erected by Shipping Board on leased land:

Durban.—

Sydney .-

operated by Shipping Board until more satisfactory arrangements can be made. Capacity 3 tanks, total 165,000 barrels. Leas-

ing arrangement with Vacuum Oil Co.

Capacity undetermined. Leasing arrangement with Vacuum Oil Company.

Name, Coaling Station Name, Fuel Oil Station Name, Coal and Oil Station Principal Coaling Stations Principal Fuel Oil Stations Principal Coal and Oil Stations Petropavlovskij Coal Fields Port Arthur Nanklog 9 Wubu Changsha PHILIPPINE

American Oil Fuel Stations of the East Asian Division.

Rio de Janiero. - Capacity 100,000 barrels. Leasing arrange. ment with West India Oil Co.

Despite what has been done, the United States is still at the threshold of the major part of the question, this involving an increase in storage capacity of fuel stations and additional tank steamships for transporting oil to them. We must now carry oil to our Atlantic seaports, not only from Mexico but from the Texas and Louisiana fields as well.

The United States Shipping Board estimates that the oil burning deadweight tonnage, naval and merchant, flying the American colors will be 8,600,006 tons by June 1, 1921, with a fuel oil requirement of 5,800,000 tons a year, compared with January 1, 1920, oil burning tonnage of approximately 5,500,000, with its fuel requirement of 2,500,000 tons a year. It was in line with this estimate that plans for the oil stations were begun.

With Shipping Board fuel stations established on the import. ant trade routes, the enormous advantages which the new fleet of oil burners will possess, may be summarized as follows: -

Oil requires less bunker space than coal for a given steam. ing radius.

It can be carried between double bottoms and in other places where neither coal nor cargo can be stored.

The space usually given to coal can be occupied by freightpaying cargo.

Bunkering can be effected with greater dispatch, and is not interfered with by darkness or the state of the weather.

It is not attended with the dirt and other discomforts incident to coal bunkering.

Labor and machinery are not required for handling ashes. Oil fuel eliminates stoking, thus reducing the size of the crew and labor costs.

It possesses greater thermal efficiency than coal and reduces fuel costs.

Uniform steam pressure easily maintained, thus insuring a steady rate of speed and reducing the deterioration of furnaces and boilers resulting from uneven temperatures.

British oil supply depots are already in existence on the Thames, at Avonmouth, Southampton, Manchester, Liverpool, Barrow, Hull, Sunderland, Grangemouth, and Belfast, All important docks and harbors in Great Britain and Ireland are recognizing that, if they are to maintain their position and enhance their prosperity, provision will have to be made, where it does not already exist, for storing petroleum products. The advent of oil-driven shipping will mean the establishment of chains of oilbunkering stations throughout the world to enable steamers to replenish supplies, and great developments are reported to be taking place in the installation of oil-fuel stations to serve such purpose.

### An Orgy of Political Madness

The compelling motive back of the scramble for oil concessions is manifestly political. The Royal Dutch-Shell combination, on the one side, and Standard Oil on the other, have been thrust into a contest the end of which no man can predict. Every British and American oil company is a considered factor. Governmental pressure, open and secret, is being exercised.

Sir E. Mackay Edgar, a British expert, predicts that in ten years America will be paying England \$1,000,000,000 a year for oil. He says:

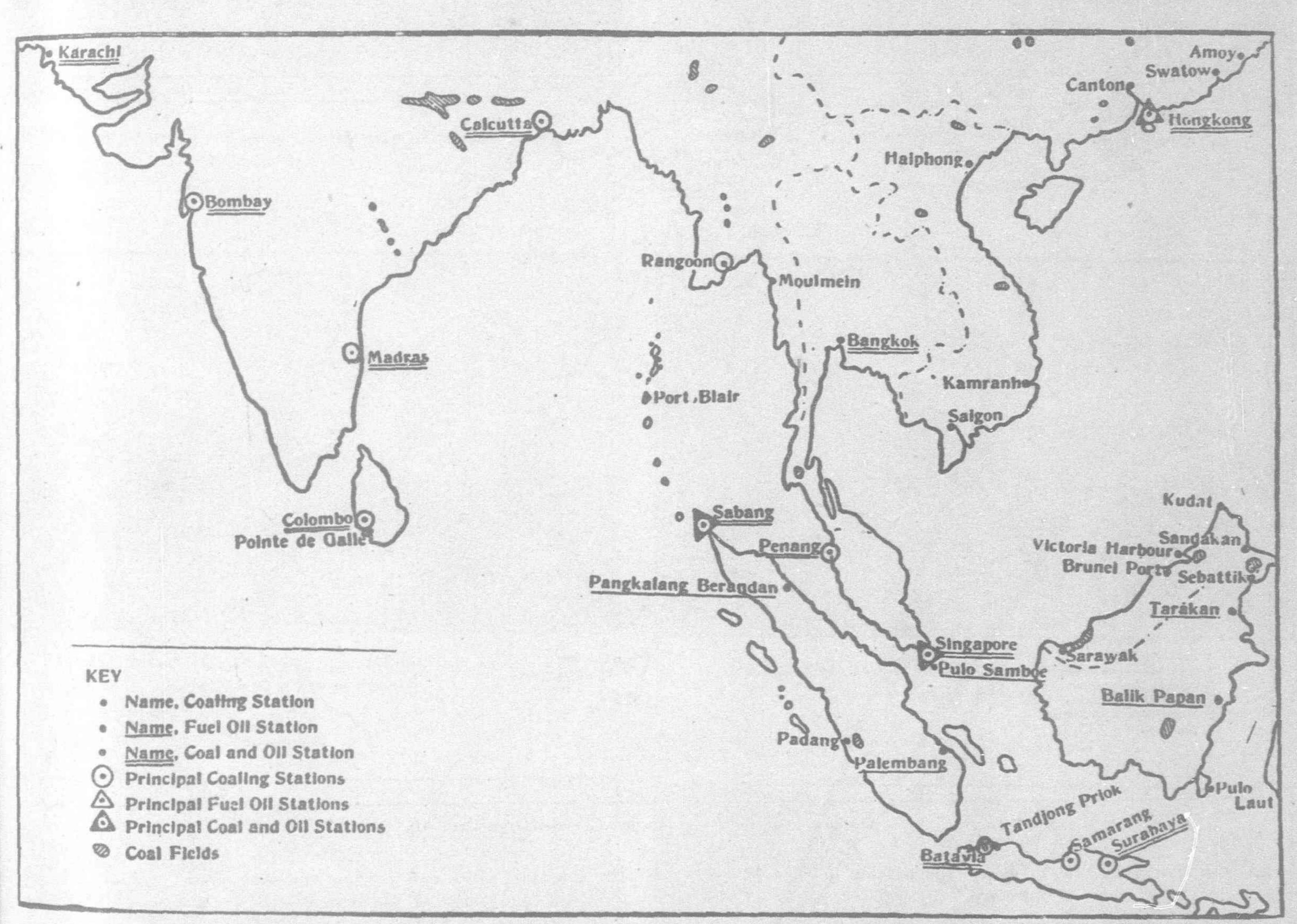
"America is beginning to realize that her supremacy in oil is passing away and that the future of this most vital of industries lies with Britain. While America has been exhausting her supplies at prodigal speed, we have been getting a firmer and ever firmer hold on the world's reserves of oil. In a very little while America will have to come to us for the petroleum she needs. In sixty years, America has run through a legacy of petroleum that, properly conserved, would have lasted her for a century and a half. They have misused their oil, just as they have misused every other form of natural wealth. Improvidence, carelessness and a blind gambling spirit have marked all except the most recent phases of the American oil industry and have wrought incalculable and irretrievable loss. America already 18 an importer of oil. Last year she imported some 40,000,000 bar rels from Mexico.

The great leaders of the American oil industry, men like Henry L. Doherty and Mr. A. C. Bedford, have foresight as well as enterprise. But what have they found. They have found wherever they have turned that British enterprise has been before them and that control of the most promising fields is in British hands. Apart from Mexico it is almost a case of Britain first and the rest of the world nowhere. I should say two-thirds of the improved fields of Central and South America are in British hands. In Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela and Ecuador a really decisive overwhelming majority of the concessions are held by British subjects. The Shell group holds controlling interests in the important oil fields of the world. The British Government has acted with shrewd foresight in acquiring control of the Anglo-Persian Oil Co., whose concessions run 41 years and cover the whole of the Persian Empire. The same is true of the Mesopotamia fields, and England no doubt will retain control of the

Imports of oil from Mexico totalled approximately 7,000,000 barrels.

Dr. Van H. Manning, director of the U. S. Bureau of Mines, says that "while the year 1920 began with an increasing oil production, the consumption has increased so much faster that in January, February and March it was necessary to take 3,373,000 barrels of crude oil from storage to meet the current needs. The consumption of all petroleum products has increased at an enormous rate, and production is not keeping pace. The North Texas fields have apparently reached their maximum, unless new fields are found, and is on the decline; North Louisiana has promising fields, but the production is not large enough to offset declines in other fields."

The United States government is being urged to embark in the oil business. Senator Phelan of California has introduced a bill in the Senate for the organization of an oil company to be known as the United States Oil Corporation, which is to be



American Oil Fuel Stations of the Indian Ocean Division.

Russian fields, which are now held under military occupation. America in ten years will be importing 500,000,000 barrels of oil a year. At \$2 a barrel—a very low figure—that means an annual payment of \$1,000,000,000 per annum, most of which, if not all, will find its way into British pockets."

While these statements have been deprecated by both British and American authorities, reports of the U.S. Geological Survey indicate that they are not altogether made at random. It is officially estimated that "over 40 per cent. of the oil in the (United States) oil fields has been brought to the surface" and it is further stated by the Geological Survey that "the underground supply is equal to less than twenty years of the present consumption demands." The March consumption broke all records. America produced 36,491,000 barrels and consumed 37,539,000 barrels. Stocks were reduced to 125,291,000 barrels.

modeled on the plan of the Shipping Board and which would have as its object the stimulation of oil development in foreign countries in an effort to combat the efforts of England in this direction. The corporation would be controlled by nine directors to be appointed by the President, and the ownership of the stock restricted to American citizens, and the Government would retain a preferential right to take over all or any part of the oil for its own use.

Oildom says very sensibly: "The question whether the American oil industry would support such an enterprise, dependent for its success largely upon politics, is doubtful. The oil industry is well able to take care of itself, even in competition with foreign governments, but what it does need, and has a right to expect, is due protection against unfair discrimination. The policy of the administration in the past has been to hamper the

industry in every way possible. If the industry has protection at home and abroad it will be fully able to care for itself."

### The Anglo-Persian Agreement

At the general meeting of the Imperial Bank of Persia, held in London on March 15, some interesting statements were made with respect to the appointment, under the Anglo-Persian agreement, of a financial adviser nominated by the British Treasury, and the grant to the Persian Railway Syndicate of permission to carry out the survey of a railway from the Mesopotamia border through Hamadan to Teheran, with a branch to Enzeli on the Caspian. In connection with these matters the chairman of the bank, Sir Hugh S. Barnes, said:

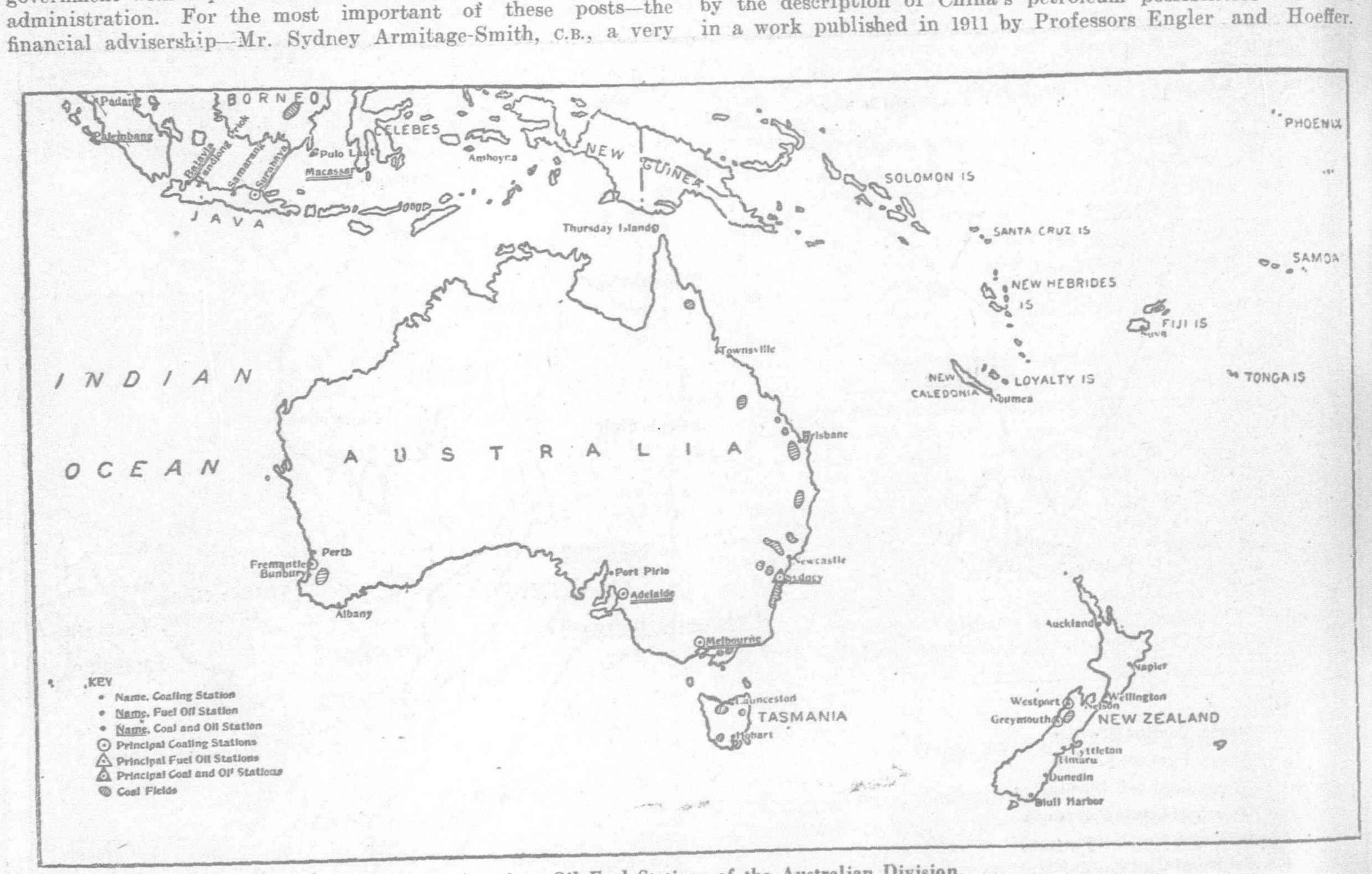
You will remember that under the Anglo-Persian agreement the British Government undertakes to supply the Persian government with expert advisers in some of the departments of administration. For the most important of these posts—the by the description of China's petroleum possibilities furnished

viâ Dizful to Hamadan, which was partially surveyed by the Railway Syndicate before the war, will at a later date be taken in hand. This is an important line, as it will provide the fertile districts of northwestern Persia with access to the Persian Gulf by the shortest route."

Marine demands for oil fuel will, of course, directly affect the automobile industry. During 1919, 1,500,000 American cars were built. It is estimated that 8,000,000 cars and trucks are now in use in the United States, and the automobile industry is more active than ever.

### The Oil Fields of China

That China possesses vast and immensely valuable oil resources is a generally accepted fact. Shortly before the outbreak of the European war, international oil experts were much interested



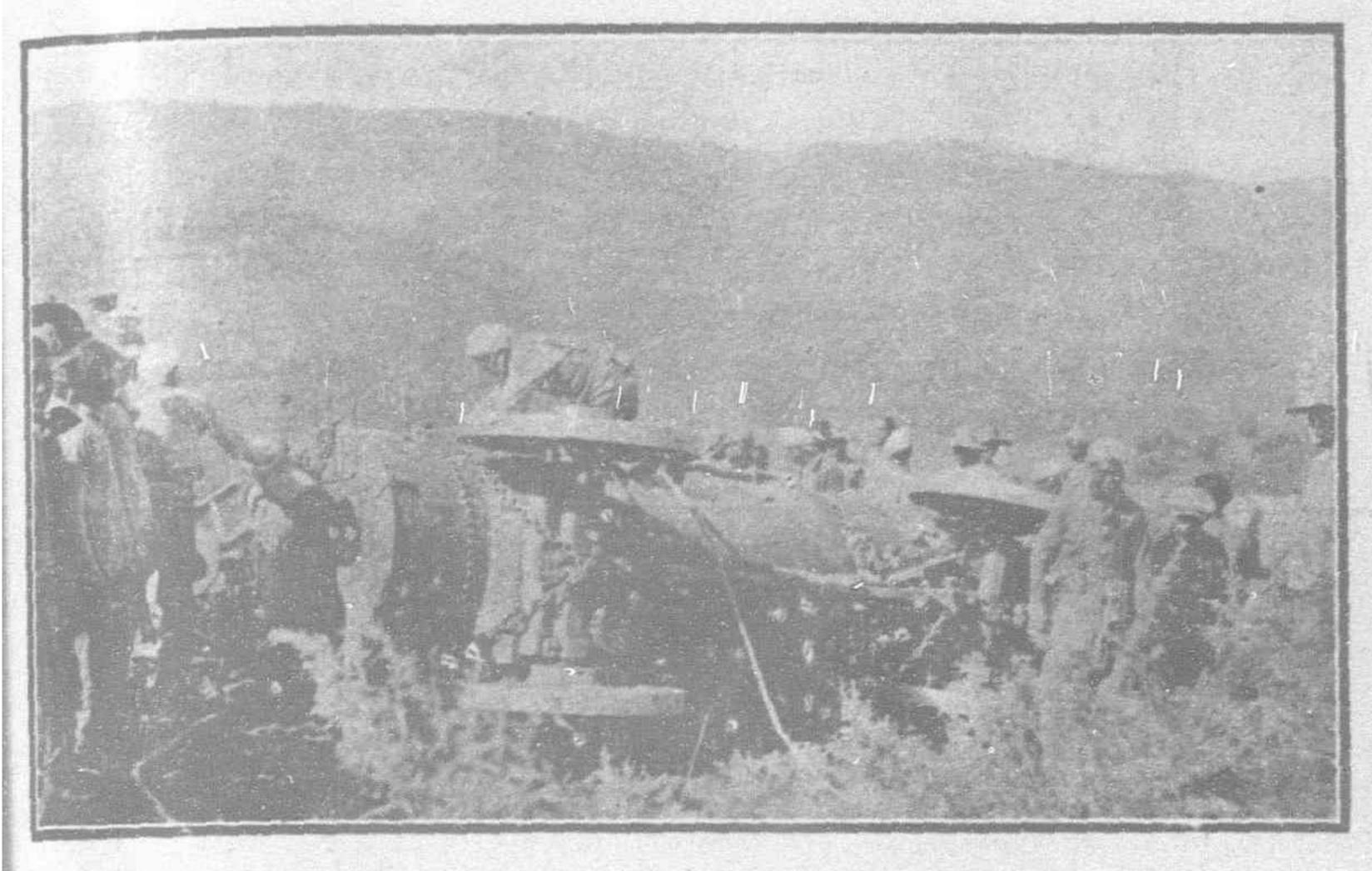
American Oil Fuel Stations of the Australian Division.

able and distinguished Treasury official, has been selected, and The authors, after a tour that embraced wide regions, said: he sailed for Persia 10 days ago. I need hardly say that it will be not only the business, but the privilege and pleasure of the officials of the bank as the State Bank of Persia to do all in their power to assist and cooperate with the Persian Government and its official adviser in the important work of financial reform, on which the progress of the country will so largely depend. Another matter provided for by the agreement is the revision of the customs tariff, which is now, I believe, under discussion in Teheran.

"You will also have seen from the statement which appeared in the newspapers that the bank is one of the members of the Railway Syndicate. I venture to think that the Persian Government has shown much wisdom in deciding that the first railway to be made should be one connecting the capital with Bagdad. When the gaps in the Bagdad Railway are completed the construction of the Persian line will place Teheran in direct railway communication with Europe. The effect on the trade and general business of the country cannot fail to be considerable and the project is one more likely than any other to be rapidly remunerative. It is also hoped that the line from Mohammerah

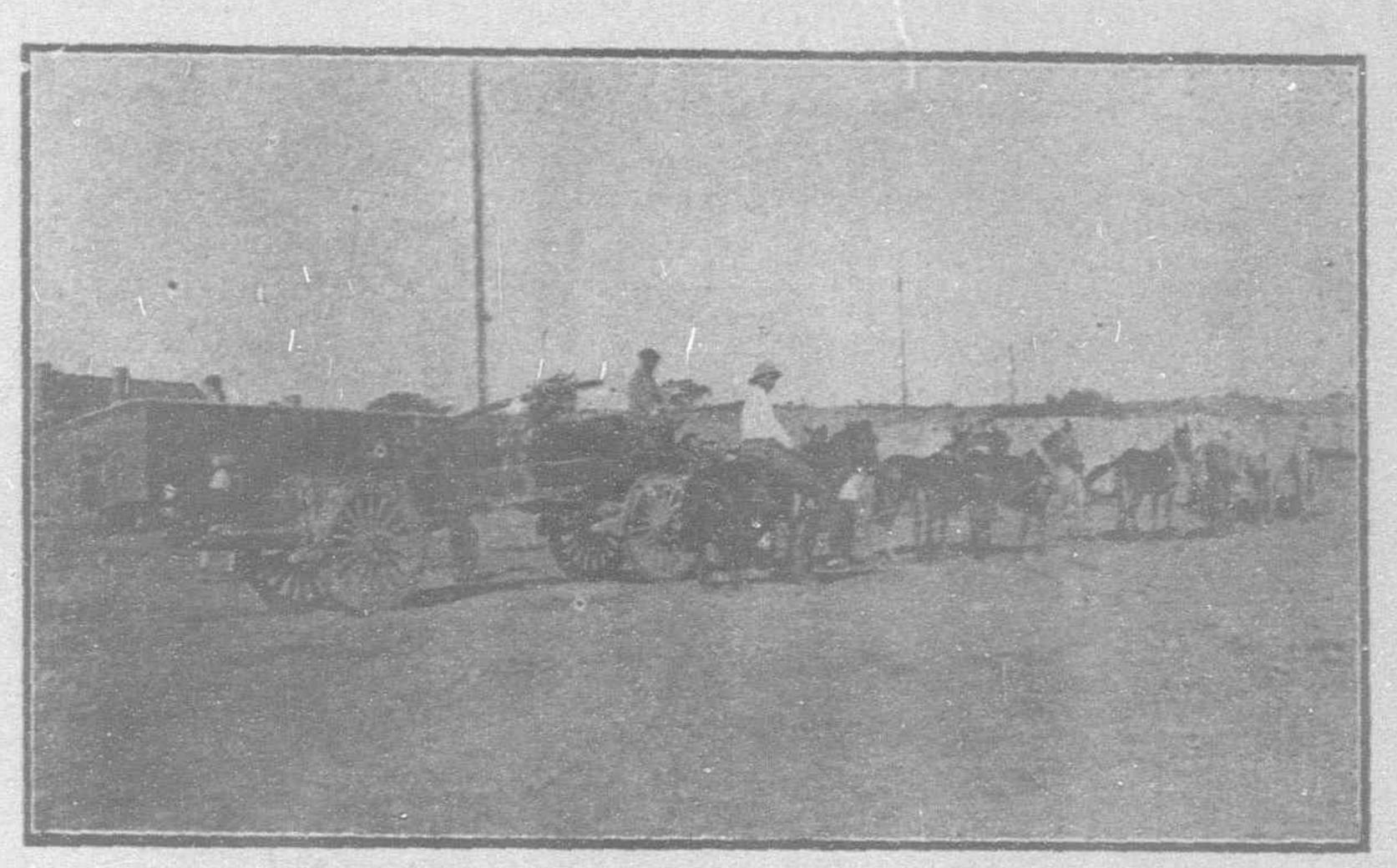
"On the South of the desert Gobi, at the base of the Nanchang Mountains, in the province of Kansuh, at a distance of 20 miles from Schangte-King-pou, near the River Tsche King-sia, are situated petroleum rocks. About a dozen wells, 3 ft. deep, are separated by an enclosure. Four families, descendants of the discoverers of the bearing, have the authorisation of collecting the oil, which daily accumulates on the surface of the water. Out of the total quantity of petroleum they have to pay the State 500 gallons, and contribute to the illumination of the pagodas 100 gallons a day, and the rest is their exclusive property. The oil is used as lubricating oil, or, after it has been submitted to a summary cleaning, as an illuminant. In the province of Shensi, at a distance of about 100 miles to the south-west from the missionary station Hsiaotschao and the town of Ning-tiao-liang, petroleum rocks are situated in a mountainous district. Rivulets of petroleum are there, descending from great heights from red rocks and sands. The oil is of a greenish colour and very fluid, and is used as an illuminant. In the yellow tertiary layer, 104 to 300 ft. deep, the hong-gay (reed) sand, the qua-hong-gay

### THE OIL FIELDS OF CHINA.

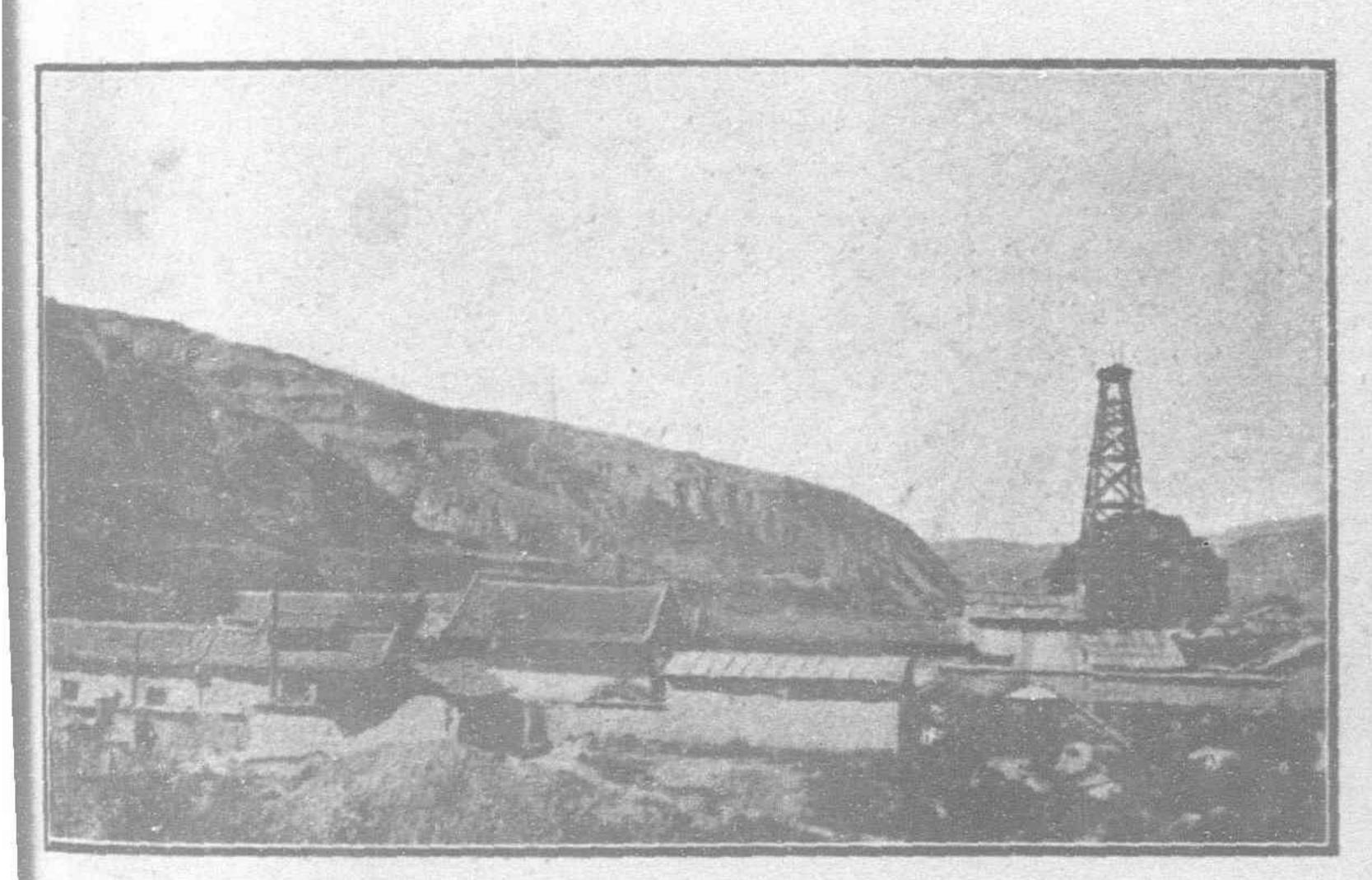


Boiler Overturned. Showing Construction of Special Carts

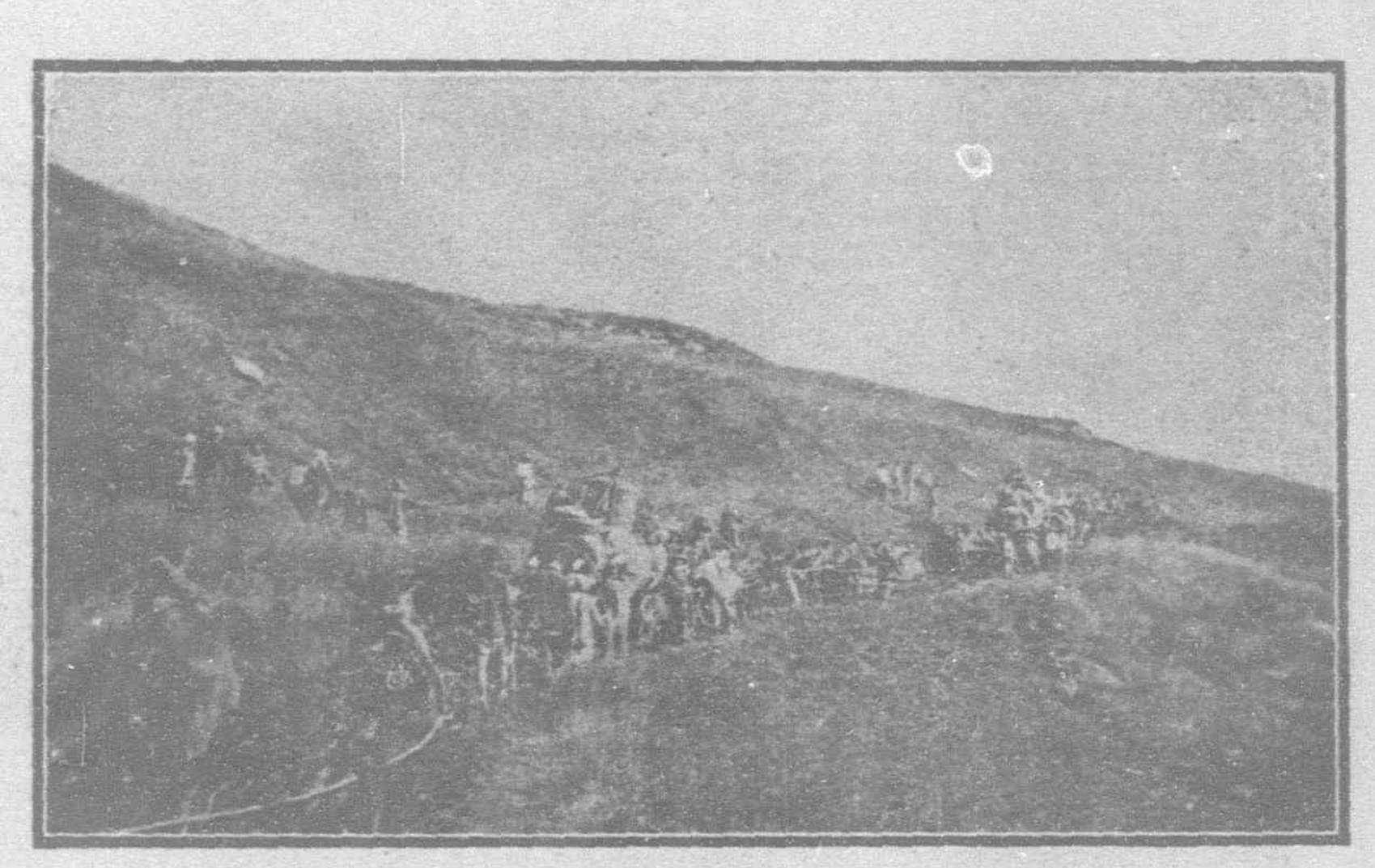
Made for this Trip



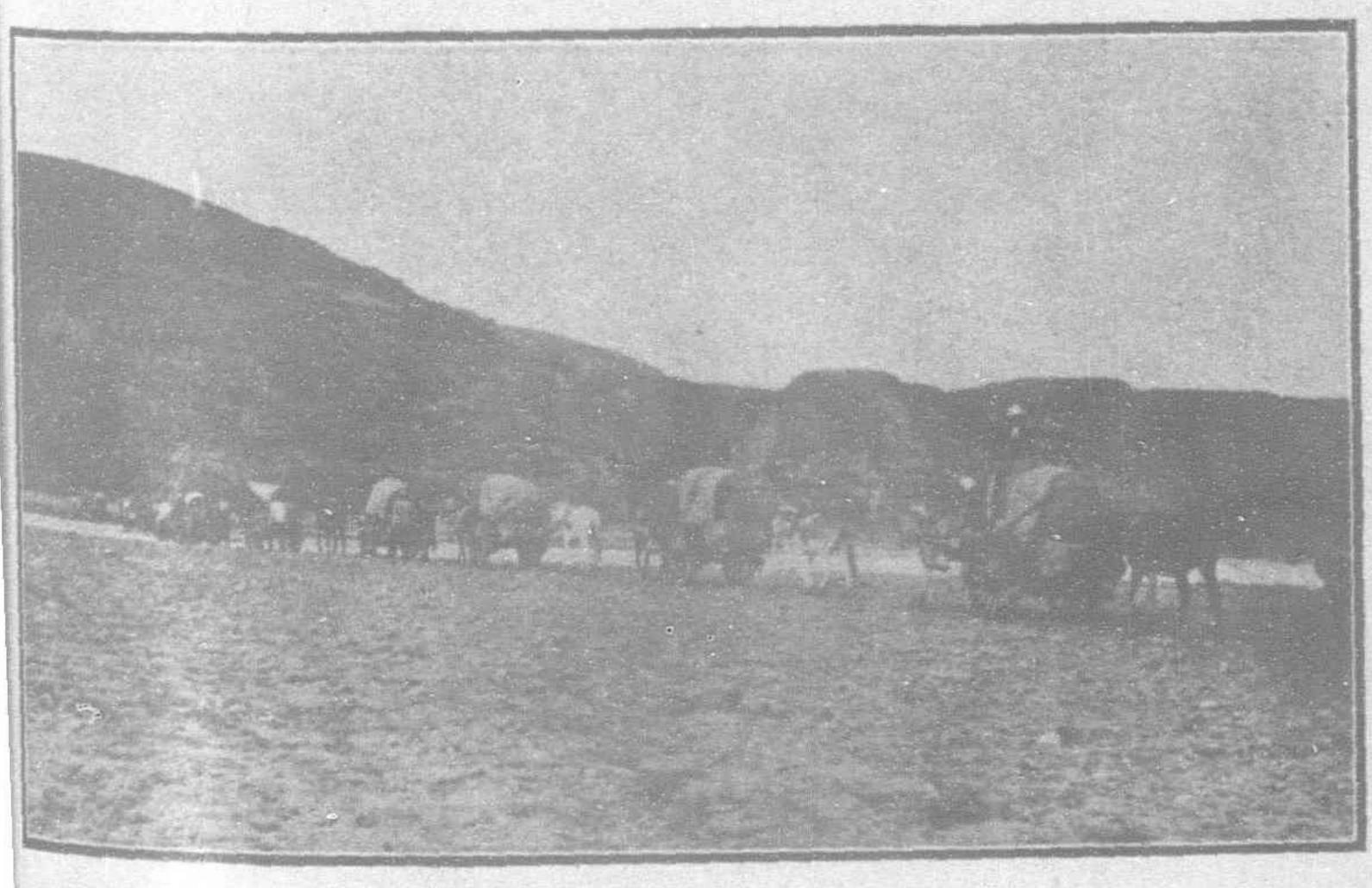
Method of Transporting Heavy Steel Stem. Ten Mules to Draw One Stem



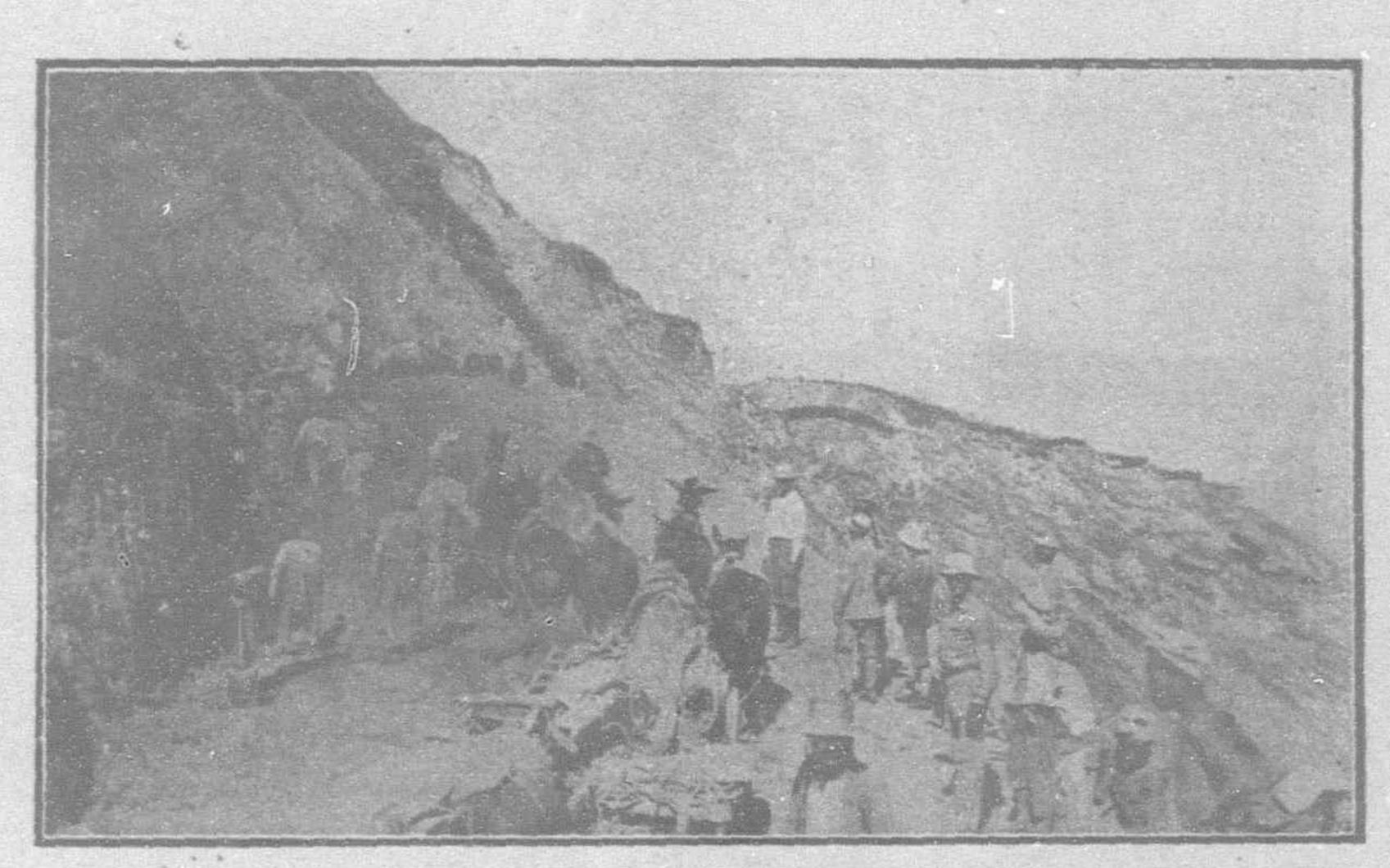
First Chinese-American Camp Site at Yenchang, in the Chinese Oil Field of Shensi



Transporting Boilers over Rough Country on the Way to Yenchang, Shensi



Standard Oil Caravan on the March



Road Making in Shensi to let Machinery Through

Standard Oil Parties Seeking Oil in China.

(grey) limestone, the honag-kiang-gay (orange) onthic iron, then the bituminous strata at a depth of 600 ft., then the fsao-pe-gay (white salt) the haoang-tsche-gay (yellow); then at a depth of 810 ft. the gas strata; then, again, tsin-tsche-gay (grey blush) strata, forming-marls; and finally, the petsch-gay (white-strata, corresponding to the permien limestone. At this depth of 990 to 1,800 ft. there is salt water in yellow layers, then mey-tau-gay, limestone and coal, the ma-kou-gay (brilliant green), corresponding to silurians, the he-you-gay (Cambrien). Below 2,790 ft. there are salt waters and large quantities of gas. Most of the borings at Tse-lin-tsin are at this depth. Petroleum is found some before reaching the marl and shale formations, the salt water before reaching the coal. The gas is found above coal, the richest parts being in the passing strata; coming from this level it burns with a blue or yellow flame, and when found above

petroliferous formations that distinguish the Trans-Caucasian oil fields, extending from the Crimea into Persia, Burmah, Chinese Turkestan, Kansuh and Shensi, are known to cover a vast range, and it is contended that some of the richest gushers of the future will be developed in the maritime provinces. That remains to be seen. Certainly, there is a substantial basis for the belief that not all China's oil wealth is located in the West. where prospecting, development and transportation is difficult because of Chinese backwardness in modern means of communication.

As in most things of a progressive character, the oil production of China has been neglected by selfish officials too intent upon their own sordid interests. The history of the Shensi oil fields illustrates the spasmodic way in which the mandarins have approached such real possibilities as mineral oil.



One of the 8,000 ton Tanks of the Asiatic Petroleum Co., at Pootung (Sbanghai) China.

the level with white flame. It often comes out under very high In October, 1908, En Shou, who was Manchu governor of pressure, and with tremendous explosions. The crude oil is of various colours; the best is nearly water white, and is used exclusively as an illuminant for lamps. The yellowish and greenish oils are as well used for illuminating, while the black viscous oil as lubricant. The Chinese do not refine their petroleum, but sell in on the spot at prices varying from f.0.33 to f.0.41 per kilo. The number of petroleum sources in the district is from 30 to 40, and in the whole province about 50. In the district of Pen-Tsihsien (province Tung Chuan-Fu) there is a company formed for the purpose of petroleum exploitation. The oil obtained by the company is heavy and cannot be used for illuminating purposes without being refined. L. de Loezil, an explorer of China reports that oil of excellent quality is found at Futschau-fu, on the River Min-ho. The district Min-ho shows all the signs of being rich in petroleum."

The petroleum wells of North Shensi, which for many years supplied wide areas of the country with illuminating oil, are the best-known but possibly not the richest Chinese oil sources. The

Shensi, recommended to the Empress Dowager that "in view of the discovery of rich deposits in the district of Yench'ang in that province, the government should obtain an interest in them by advancing a portion of the capital needed by the merchants and people who are in possession of the land containing the petroleum. An imperial rescript was issued authorizing the ministry of posts and communications to advance the sum of Tls. 2,000,000 to the oil company then being organized to exploit the wells. In consideration of the advance it was to be the privilege of the ministry to appoint the principal officers of the company."

The matter never went any further than the announcement in 1910 that a company had been formed with six million kuping taels as capital. A few local groups of Chinese then engaged Japanese to do the work for them and at a later date Japanese claimed to possess concessions which, they said, were invaded by the agreement signed at Peking, February 10, 1914, tween the Standard Oil Co. and the Chinese government head by Yuan Sh'ih-kai.

### The Chinese-American Oil Company

The full text of this agreement was published in the issue of THE FAR EASTERN REVIEW for February, 1914. The contract covered the oil fields of Shensi and Chihli. The Standard Oil Co. undertook to send experts to make a thorough invistigation of the Yenchang, Yenanfu and adjoining fields in Shensi and the Chentehfu and adjoining fields in Chihli, the cost to be borne by the company and the government jointly. If these investigations showed that the fields could be worked with advantage, an American-Chinese corporation was to be formed. The capitalization was to be 55 per cent. Standard Oil Co. and 37% per cent Chinese government, the 371 being payment by the American-Chinese corporation for the franchise. The Chinese government was also to have the option of purchasing the remaining 71 per cent. of the capital stock at par within two years of the formation of the corporation. The government agreed that the working of petroleum in the fields named should be exclusively entrusted to the American-Chinese corporation to develop, refine and market for sixty years. If the fields examined proved to be worthless, other districts might be exploited. A clause provided that a royalty not exceeding 1.5 per cent. of the value of crude petroleum at the place of production should be paid to the government. For one year after the signing of the agreement no concession of petroleum-bearing properties in any part of China was to be given to foreigners.

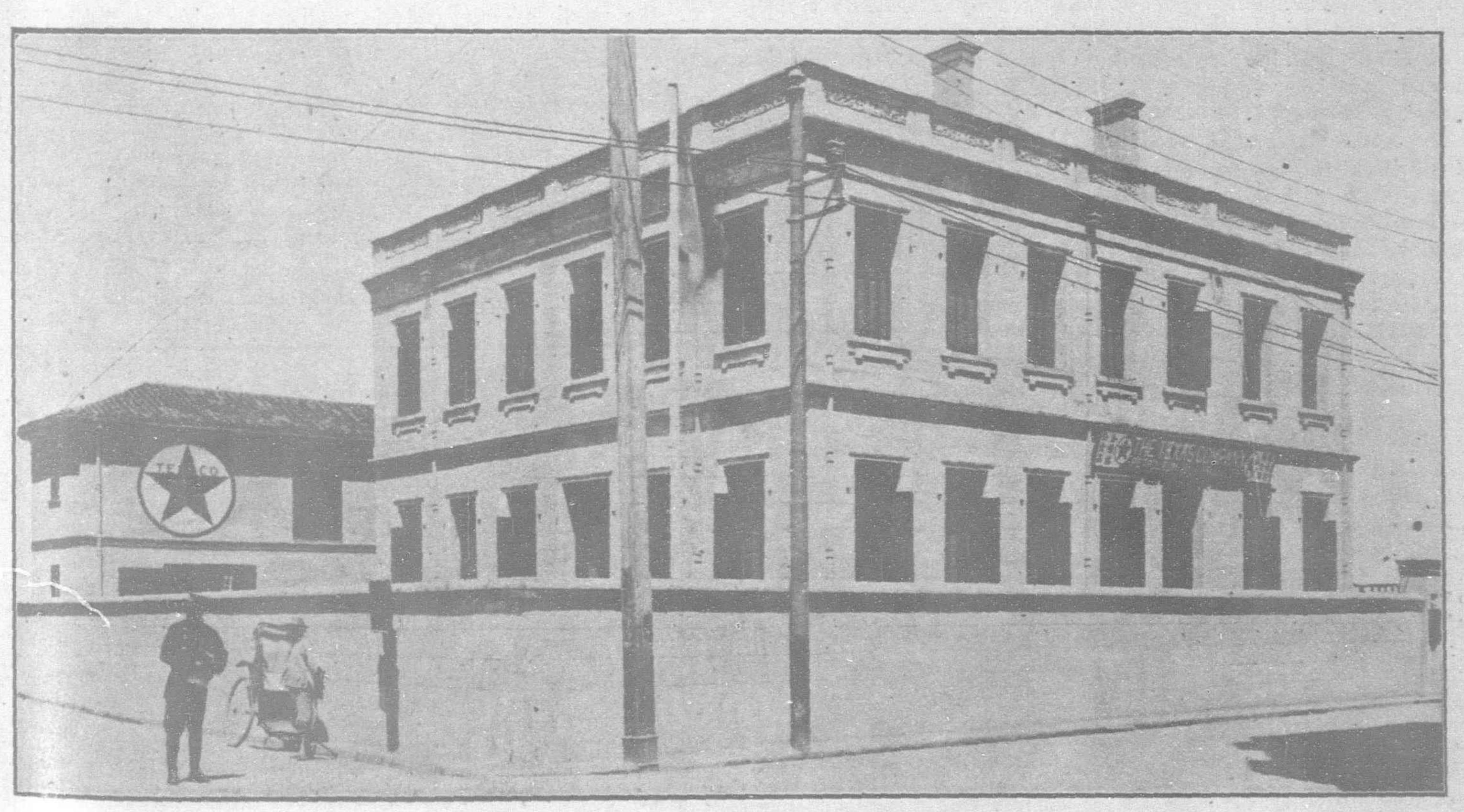
A party of experts and the necessary machinery were sent from America, and after delays from various causes a thorough examination was made of the oil-bearing districts in Chihli and Shensi.

The agreement between the Chinese government and the Standard Oil Co. expired on February 10, 1915, but, as arrangements for the formation of the American-Chinese Corporation had not been made at that date, the Chinese government from time to time extended the agreement. Towards the end, the negotiations were conducted on behalf of the Standard Oil Co. by the late Mr. W. E. Bemis, one of the vice-presidents of the company. Agreement was found to be difficult with regard to several points in a new proposal made by the Standard Oil Co. Proposals for refining and marketing were unacceptable to the Chinese government as they deemed them to be a departure from the original agreement, and to be in the nature of a monopoly, and accordingly counter-proposals were made. These, in their

turn, did not prove acceptable to the Standard Oil Co. It is understood that the thorough investigation made by the Standard Oill experts dissipated previous reports as to the value of the Shensi oil fields. The oil deposits had given out. In May, 1917, THE FAR EASTERN REVIEW published an extensive account of the field work done, reporting the semi-official statements that the surveyors had failed to strike oil. This account showed how "parties of geologists proceeded to the region of Chengtehfu, in Chihli province, first, and after an exhaustive examination reported against the field. As oil was known to exist at Yenchang and elsewhere in Shensi province, preparations were made for an immediate thorough testing of the field and expert oil drillers with three modern drilling outfits were put to work about September, 1914. The task of getting the plant to Yenchang was herculean in itself, and considerable delay was caused by the depredations of the notorious White Wolf band of brigands, and by the terrible state of the roads, the transportation over these of the heavy plant required being a feat worthy of special record. About twenty men, expert in the drilling of oil wells, assisted by the necessary skilled and unskilled labor, drilled altogether seven wells each to a depth approximating 3,000 feet, but very little oil was found in any of them. In the majority traces of oil were found at about the 400 to 600 feet level, but the further the drills bored down the less oil there appeared to be. One well each was driven at Yenchang, Huailiho, Yenanfu, Shihmentz, Chiaoerkau, Chungpu and Chinniuchuang.

"Altogether something like \$2,500,000 Mexican curreny, was spent on the work done up to March, 1916, when the accounts were closed and the drillers, etc., withdrawn. About \$500,000 worth of machinery was purchased, and that still remains in the country, much of it stored on the field and some of it at the port of entry."

The islands of Borneo and Timor have advanced to importance as oil-bearing regions. The Royal Dutch and its selling company, the Asiatic Petroleum Co., are actively engaged in these fields. One of the huge 8,000 ton tanks of the Asiatic Petroleum Co. on the Pootung side of the Shanghai waterfront is shown in an accompanying illustration. This is merely one of a number of such tanks at Shanghai, Hankow, Hongkong, Batavia, Singapore and Nagasaki, supplied partly from Bornec and chiefly from the United States. The headquarters of this company are at Tarakan, Borneo.



The New Shanghai Headquarters of the Texas Oil Co.



American Drillers Putting together specially Constructed Carts for Transporting Boilers in China

Prior to the present developments, the Standard Oil Co. of New York had stations at Yokohama, Shanghai and Hongkong, but these stations were for the purpose only of meeting the needs of the company's own vessels. The storage capacity at each of these ports was approximately 35,000 barrels. They have been opened up to the public and fuel offered for sale to all ships applying. It has been necessary to increase the storage capacity by doubling the old storage facilities, and, at the same time, increasing the fleet of tankers for keeping these stocks up. The one tanker owned by the company and used to supply these stations had a capacity of about 43,000 barrels. It has been necessary to charter other tankers to keep up the supplies. New tankers are being built for this service and these, it is understood, will be of a size capable of transporting from 75,000 to 100,000 barrels each.

With such a fleet as this, the New York company is now increasing its bunker stations in the Orient. Facilities are being provided at Singapore, Colombo, Calcutta and Bombay.

#### Asserted British Oil Monopoly

A state department report transmitted by President Wilson to the senate declares that an oil and petroleum monopoly in and out of the British empire is being created by the British. The statement was in response to a request for information on the subject by Senaor Gore.

The letter states that Great Britain has excluded Americans and all other foreigners from developing or owning in any way oil properties within its jurisdiction. The President's letter, in

a review of the situation, stated:

"England has debarred foreigners from owning oil properties in any land under the British flag;

"That it is preventing any foreigners from participation in the

direction or ownership of such;
"That orders in Council prohibit British owners from selling to
foreigners, or transfer any shares to companies or individuals

other than British subjects."

The President stated that the American government has taken no steps to allow Americans to enter foreign oil fields other than to make a world survey of the petroleum situation, after which some reciprocal working agreements may be reached with foreign nations that have oil production or oil prospects.

### The Jones Shipping Act. Its Contents, Its Critics and Its Friends

The new American merchant marine act, more familiarly known as the Jones Law, is treated editorially elsewhere. Admiral Benson, chairman of the U.S. Shipping Board, announced on July 24 that its operation would be suspended until January 1, 1921, in order that the merits of certain

objections might be investigated. Seldom, if ever, has an act of the American Congress aroused such violent discussion in Asia and elsewhere as that occasioned by this marine measure.

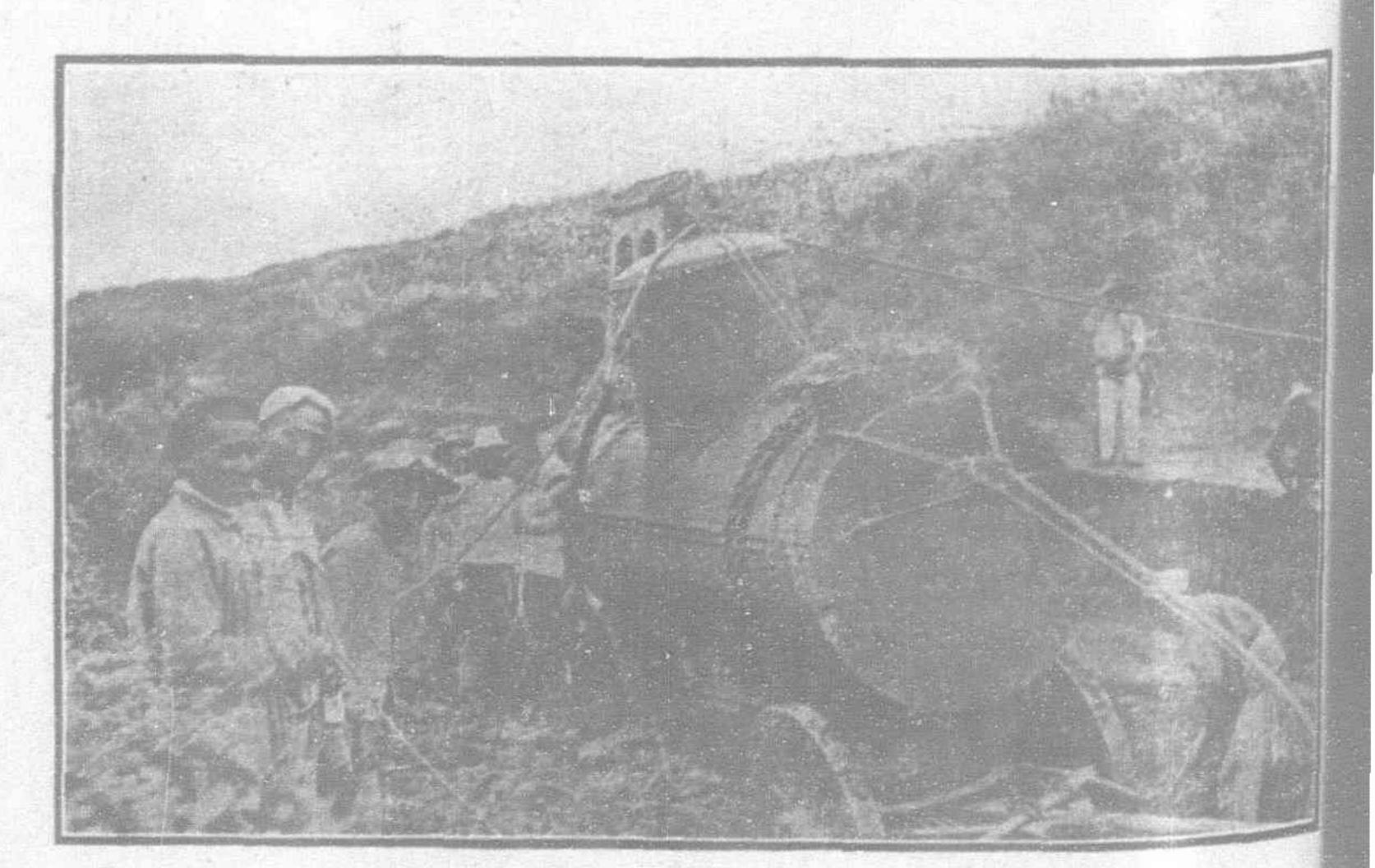
One angle to the argument recalls the case of the two card sharps and the jocular judge. John Smith and John Brown were arrested for causing a disturbance at a circus side show. Rival card sharps, Brown had sought to "show up" Smith before the crowd of hayseeds but Smith was one too many for Brown, who "proceeded to take it out of him." "What were you trying to do?" the Judge asked Smith. "Oh," explained the smiling culprit, "I was only showing him how to make the two Jacks come out together and the boob got sore. That's all there was to it, Judge." "Very well," said his honor; "John Smith, you go to jail for three months. John Brown, you go in for six months. Now, here are two Jacks that wont come out together."

President Manuel L. Quezon, of the Philippine senate. disapproves the coastwise and other insular features of the new law. Mr. Quezon is the actual author of an earlier Jones Lawthe act of August 29, 1916, pledging the Philippines independence "when a stable government has been established" by America's Filipino wards. The late Congressman William Atkinson Jones. of Virginia, fathered that bill and put it through Congress. "Bill Jones" was about the most popular thing in the Philippines until the Senator from Washington who put over the marine measure presented the islanders with "Bill Jones" No. 2. Mr. Quezon cannot reconcile the provisions of the "Two Bills." He says, in effect, that they cannot be made to "come out" together. The Filipino senate president won a reputation in Washington as one of the ablest performers on Capitol Hill, so if he cannot bring these two "Bills" out together it is doubtful that anybody else in the islands can do the trick.

There seems to be a disposition among the Americans in the Philippines to accept the bad as well as the good features of the act in a purely patriotic spirit. Probably that more than anything else has aroused Filipino suspicions and caused a return of the racial animosity that hampered the first efforts of American civil government in the Philippines and continued as an evil influence during too many years. So fierce did the argument wax, and so acute was the angle of discord between Americans and Filipinos, for and against "Bill Jones" No. 2, that Mr. Quezon is reported to have said:

"If Americans are no longer to be the friends and champions of Filipino freedom, there is a great nation to the north of our islands ready and able to fight for us, if necessary."

That is just the sort of language that Mr. Quezon's friends would expect from him. He talks straight from the shoulder. He is America's loyal and grateful friend. He does not mean that either Filipinos or Japanese would fight America. He does mean that if Americans are unwilling to shoulder the responsibility of defending Filipino liberties, the Japanese might be induced to take on the job. The president of the Philippine senate is a staunch and sincere believer in American-Japanese cooperation in the interest of Asiatic self-government.



Boiler Stuck in the Shensi Mud



Mule Litters, One Mode of Travel in Shensi

The suspension of at least the questionable features of the act is in response to domestic as well as foreign criticism. Says the Marine Review:

"So far-reaching was the law that, it was said, even some members of the committee which had a hand in framing it confessed their ignorance of many of its provisions. President Wilson was himself so doubtful of the wisdom of the legislation, from a governmental point of view, according to rumor, that he held a special meeting of his cabinet before he could decide to give it his sanction. It is reported that in this meeting, the secretary of state vigorously opposed the sanction of the law, but that he was out-voted by the secretary of commerce and the secretary of the interior."

The Seattle Times asks "Has Pacific coast trade been tendered a sword?" and declares emphatically:

"The commerce of no modern people ever prospered while involved in war, commercial or otherwise.

"This is Seattle's answer to the suggestion of a Shipping Board member that this government will fight back if the provisions of the new merchant marine act cause shippers to attempt the diversion of American cargo to foreign carriers in Canadian ports.

"It is all right for foreign carriers to make a bluff," this member is quoted as announcing, 'but they are going to be called hard if they try to make good on it. A good many people do not yet seem to realize that the merchant marine act and the Esch-Cummings transportation act were made to dovetail. Under the latter act, the Interstate Commerce Commission can declare an embargo against the movement of American freight over foreign railroads. If these (shipping) companies move their terminals to a foreign country, how would they get their American freight to these terminals in the event of an embargo being declared by the Interstate Commerce Commission?'

"Can any citizen of Seattle imagine the Interstate Commerce Commission declaring an embargo on American cargo, which would handicap the business of big Eastern manufacturers, for the benefit of this port?

"The Times, for one, cannot imagine such a situation!

"The instant an embargo was declared, the big Eastern manufacturers would set up a howl and the embargo would be declared off—in a hurry!

"Seattle and other ports on the Pacific Coast had asked, in the merchant marine act, constructive legislation that would nourish American commerce on this ocean.

"The Far West apparently has been tendered a sword!

"At least, that is the only possible construction that can be placed on the statement of the unnamed Shipping Board official quoted above, whose views apparently coincide with those of Admiral W. S. Benson, chairman of that body.

"Is this all Congress could do—is this all Congress could find to do—to assist in the upbuilding of the American merchant marine?

"Balking at the word 'subsidy,' it begins to look as if the national legislature had framed a measure which—whatever its

ultimate outcome—is destined to bear harshly upon the entire Pacific Coast.

"Things would look more cheerful—much more cheerful!—
if one could depend upon the Shipping Board—upon the continuity of its membership—upon the continuity of its policies."

"Unfortunately, there is every reason to believe that in less

than a year the board's membership will be changed.

"Will its policies change at the same time?

"If so-to borrow a phrase from the expressive slang of another day-where does the Pacific Coast get off at?"

"Seattle must bestir itself and must see to it that other ports on the Pacific Coast are equally aggressive.

"If there is to be a fight staged, involving American commerce on the Pacific, this port must take a hand in it to protect its own interests. The entire Coast must cooperate for the same purpose.

"The suggestion of a conflict is decidedly disquieting.

"If it comes and results in any interruption of trade, the Pacific Coast will be bitterly disappointed and naturally resentful.

"But, Seattle will not lose its trade! It will not give up that for which it has contended single-handed and against heavy odds over a period of many years.

"Neither, for that matter, will other cities on the Coast tamely submit to any policies which might jeopardize their vital commercial interests.

"There is nothing in the prospect that will gravely trouble men accustomed to give battle for every trade advantage they have gained for themselves, this city or this Coast.

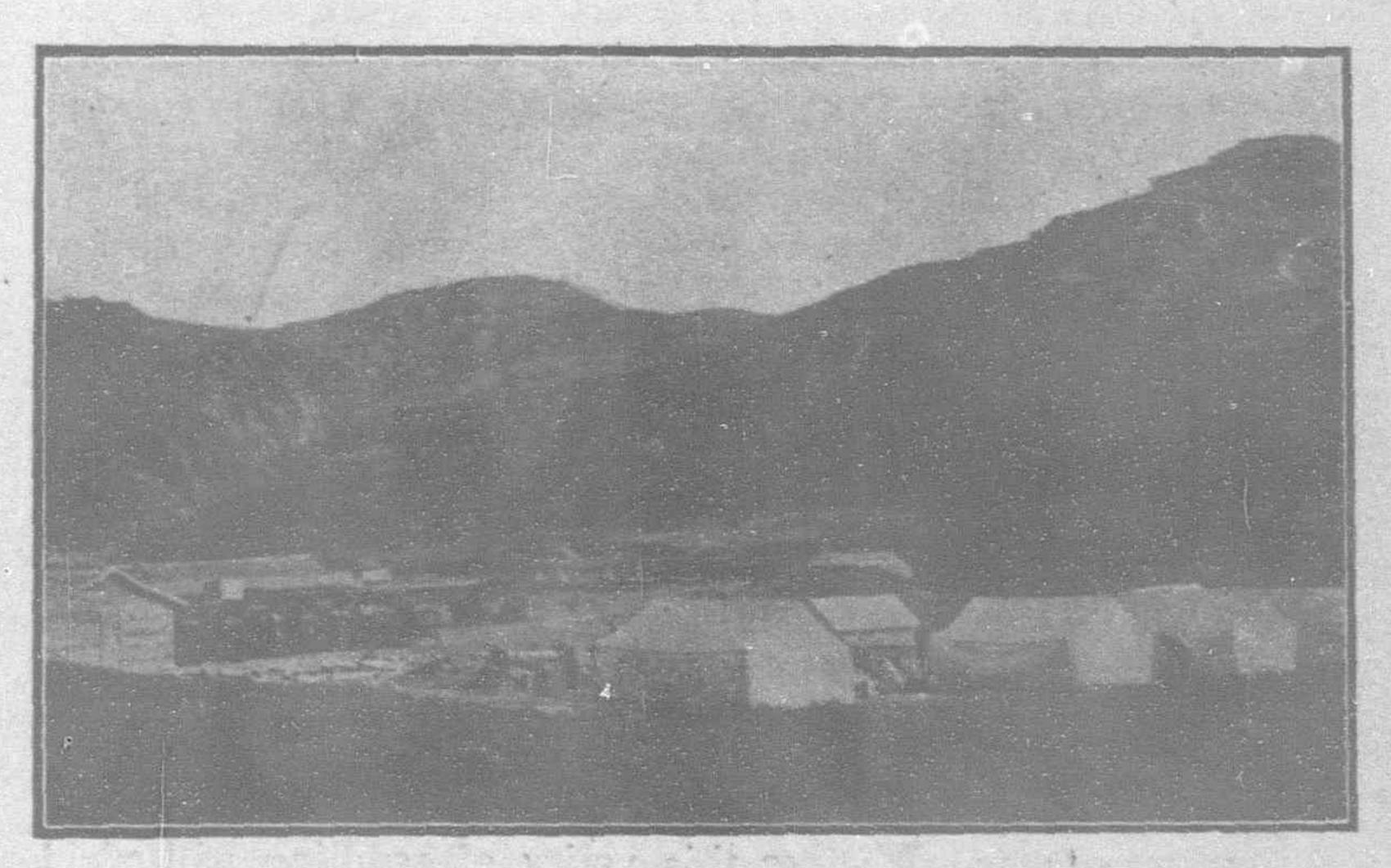
"It is the part of wisdom, however, to get in touch and keep in touch with every phase of this situation, so that Seattle and the Coast may not be sufferers from anything that may savor of merchant marine experiments on the part of Congress or the Shipping Board."

#### The Blow to Japan

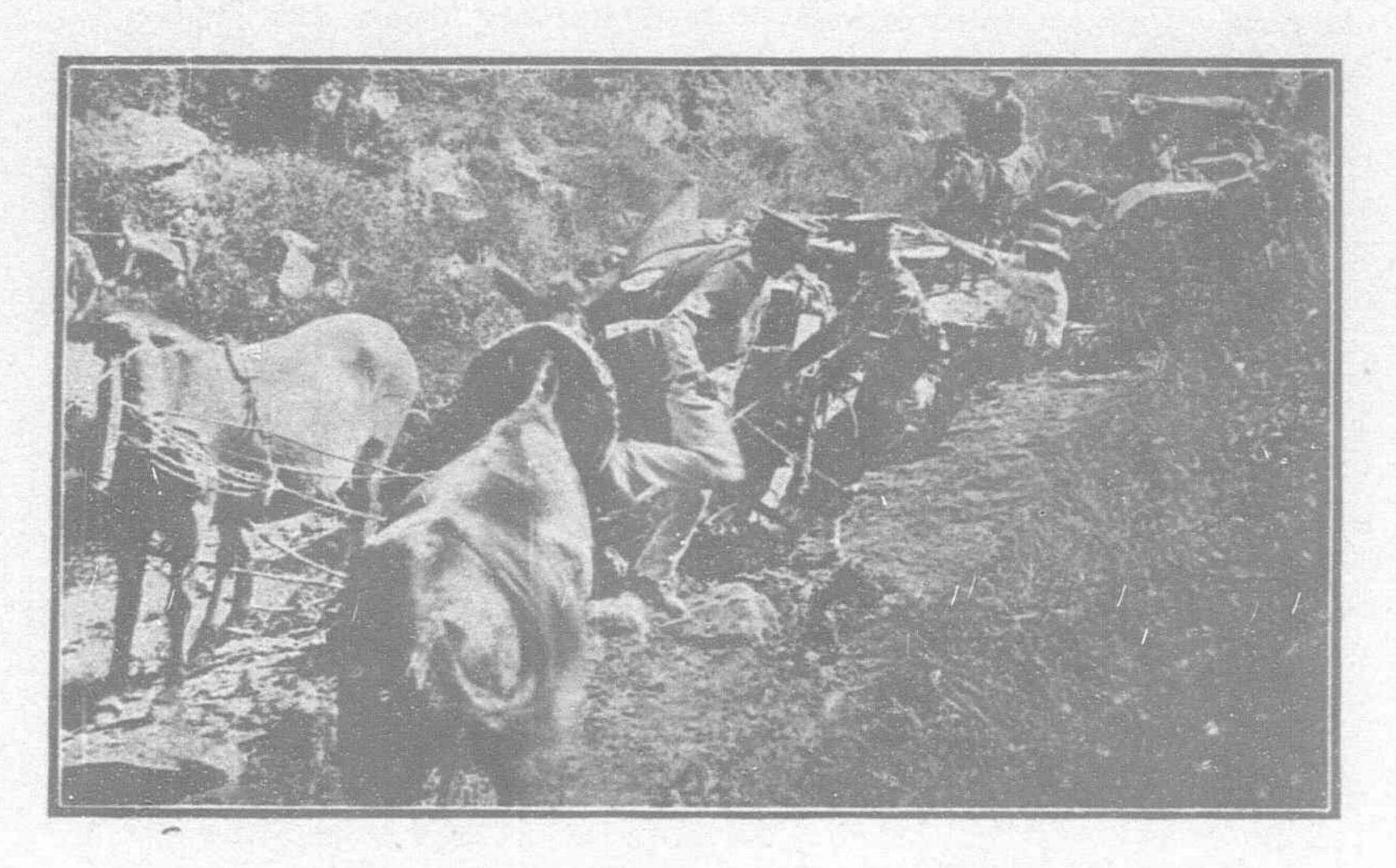
At a meeting of the Budget Committee of the Japanese House of Peers, Viscount Uchida stated that it was clear that Japanese shipping would suffer a great blow from the operation of the new shipping law in America. The date of the operation of the new measure, he said, had not yet been determined, but it would not be put into effect until six months after notice of its operation was received. He added that the restriction of railway freight contained in the Jones Bill would be applicable to all foreign countries and that careful attention was being paid to the matter.

A question as to the possible prohibition of participation by foreign vessels in the coasting trade of the Philippines, was not answered.

Replying to a question by Baron Sakomoto, Viscount Uchida stated that the Japanese government had been paying close attention to the progress of the new shipping proposal in America. This, however, was a matter which did not allow of interference by a foreign country.



Pitching Camp at Oil Site, Yenchang



Meeting Some Exigencies of a Shensi Oil-Seeking Situation

"This is an American act; it is intended solely for American interests," Senator Jones declares in defense of his measure. Then, he goes on as follows:

"European powers are freeing themselves from treaty provisions that will hinder them in the struggle for the world's trade. We have been prevented from doing what many thought should be done to aid our merchant marine by treaties entered into many years ago. This is a splendid time to unshackle ourselves and put ourselves in a position to make such treaties, to enter into such commercial relations, and to enact such laws as we think will promote our welfare in the world's readjustment. Other nations will look after their interests. We must look after ours.

"British Lloyd's is one of the greatest factors in maintaining a British merchant marine. We should have a similar organization in this country, and we feel that the American Bureau of Shipping should be to our shipping what Lloyd's is to British shipping. We therefore provide in this act for its encouragement by directing all governmental agencies to use that bureau for classification purposes.

"American mail should be carried in American ships, if at all practicable. Of the more than \$3,000,000 paid every year for carrying our mail overseas about \$2,500,000 is paid to foreign ships. This is so much aid or subsidy to them. This we want stopped. We want our mail carried in our ships."

#### Specific Defects

The New York Journal of Commerce enters the following specific criticism:

"Not the least dangerous element of protection is the grant of low export-rates to goods carried in American bottoms—a measure sure to invite retaliation. Highly objectionable also as a piece of special privilege is the section exempting shipowners from income and excess-profits taxes for ten years to come provided that they annually reinvest in ship construction a sum equal to the taxes they would otherwise have paid to the Government. The legislation is against the spirit of the times, opposed to all sound, economic doctrine, and essentially inequitable. It is more nearly modeled upon the lines of Prussian protectionism as exhibited in Germany before the war. It must, therefore, be a failure in the broadest sense of the term."

The Liverpool Journal of Commerce says that "the British mercantile marine asks for nothing more than a fair field against all rivals," recognizing America's general right to protect American shipping. Says this responsible British maritime spokesman:

"It is realized that a United States mercantile marine can not be operated at the same costs as British, Norwegian, Dutch, or Japanese shipping, and it is therefore necessary to extend to shipowning interests in the States the large measure of protection which has always been favored for the development of United States home trade. Whether this policy of coddling will yield the desired results is at least doubtful. Our own ship-owning industry has assumed the foremost place without any of the careful nursing which is to be accorded to United States merchant shipping, and the British mercantile marine asks for nothing more than a fair field against all rivals."

The Sun-Heratd, of New York, admits that "Great Britain can hardly be blamed for watching with something like alarm the launching of our 10,000,000-ton merchant fleet." Nevertheless, the Sun-Herald is naively skeptical of certain foreign protestations of virtuous altruism in shipping expansion. Mr. Mitchel thus "passes the buck" to Fleet Street critics:—

"The hints from London regarding retaliation if we do adopt a preferential policy say that England employed no such discriminatory means to build up her merchant marine, which achieved brilliant and powerful success through a policy of 'no fear and no favor.' Any one who knows the slightest thing about the British merchant marine policy knows this is not a fact.

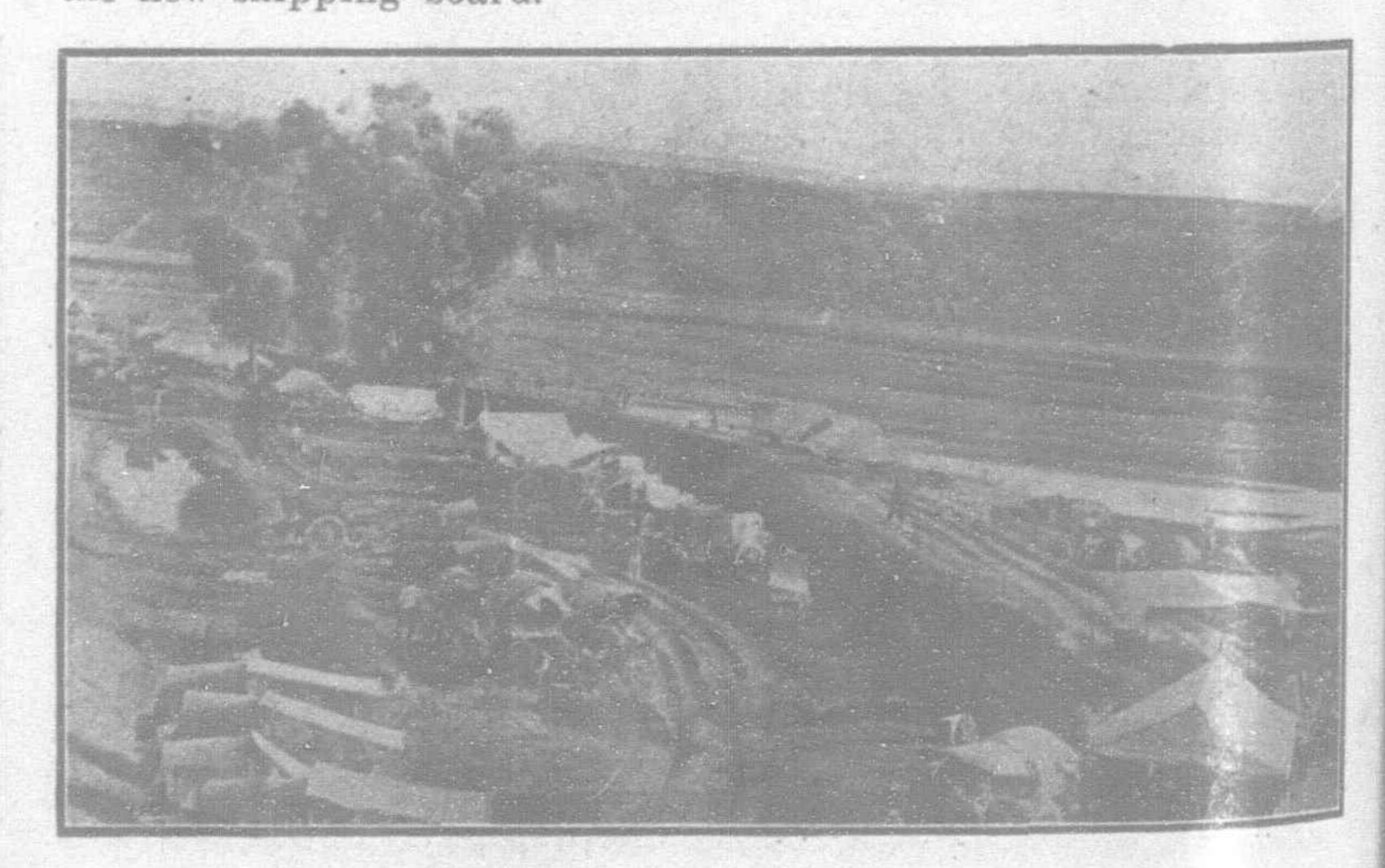
"England has a perfect right to take these measures if they are necessary to her welfare or if she so desires; her ships, insurance companies, docking facilities, foreign-port concessions, and control of trade routes were all obtained by British brains, energy, money, or courage, and England has full freedom to use them as she will for the promotion of her commerce. But to deny to us or to anybody else the same right by saying she practises no shipping discrimination is a plea which must be laughed out of court."

#### Our New Neptunes

The Marine Review throws the following interesting light upon "the most important shipping measure ever enacted by the United States:"

"The shipping board is left to its own discretion as to the manner of disposing of the government's \$3,000,000,000 equity in shipping to private American operators. It is granted a revolving fund for five years to lend to private operators at its will without restriction as to specific accounting, and it may issue rules with the effect of law whenever it pleases for the purpose of building up the merchant marine. In effect, the new act delegates lawmaking powers to the shipping board.

"The result promised is that the success or failure of the statute is entirely in the hands of the shipping board, and whether or not the United States is to have an American merchant marine depends entirely upon the caliber of the men appointed to that board. The new board is to be constituted of seven men, two elected from the Pacific coast, two from the Atlantic, one from the Gulf, one from the Great Lakes, and one from the interior. When the measure was enacted, only two men remained on the board, Chairman Benson, and Commissioner Donald. Judging from the political sentiment existing in Washington, and THE MARINE REVIEW has made a thorough personal canvas there, President Wilson will name five new members to the board, but in view of the nearness of the expiration of the present administration, those nominations are not likely to be confirmed by the senate. If the Republicans are successful at the polls next November, the majority in the senate will see to it that the new President shall have the pleasure of selecting the personnel of the new shipping board.



Camp of Standard Oil Co., Showing Character of Country along River near Yenchang

"The new law is strictly a nonpartisan measure, but the Republicans had the greater say in its framing. The Democratic heads of the state and treasury departments are critical of its provisions, the one because it dislocates treaty provisions and the other because of the blanket appropriation authority given the shipping board for the spending of public money. Some legislative experts are also critical because congress has clothed the new shipping board with legislative authority."

#### The Jones Shipping Law at a Glance

The Jones Shipping Law contains the following provisions: --

- Section 1.—Announces the intention of Congress to have the government do all it possibly can to encourage and maintain an American merchant marine, privately owned and operated.
- Section 2.—Puts an end to government shipbuilding, permitting only the completion of the building now under way.
- Section 3.—Creates an enlarged shipping board, composed of seven members with a salary each of \$12,000 per annum.
- Section 4.—Transfers title of the ex-enemy vessels to the shipping board.
- Section 5.—Directs the shipping board to sell the vessels it has title to, upon whatever terms the board deems best, but limits the time of final payment on such vessels sold to 15 years.
- Section 6.—Permits the sale of government vessels to aliens if a sale cannot be made to Americans.
- Section 7.—Instructs the board to establish needed new steamship services by sale or charter of government vessels, and authorizes the post office department to grant mail contracts.
- Section 8.—To facilitate port development and to distribute import and export traffic among various ports, the board may act in conjunction with the interstate commerce commission.
- Section 9.—Demands marine insurance to be carried on vessels sold by the board on deferred payments.
- Section 10.—Authorizes the shipping board to establish its own insurance fund to cover ships or other property of the board.
- Section 11.—From revenues from sales or operations, the shipping board may set aside a fund of \$25,000,000 a year for a period of five years to lend to Americans who desire to build ships, the loan not to exceed two-thirds of the cost of such ship or ships.
- Section 12.—Will permit the board to recondition the ex-enemy vessels.
- Section 13.—Authorizes the sale of other property owned by the board.
- Section 14.—Provides for the transfer of excess revenues of the board to the treasury.
- Section 15.—War department exempted from payment of charter hire on shipping board vessels used during the war with Germany.
- Section 16-Terminates the authorization given the board during the war for building, etc., houses or buildings.
- Section 17.- Shipping board to take over on January 1, 1921, all terminal properties acquired by the war department during the late war.
- Section 18.—Prevents the sale of American vessels to foreigners without the consent of the board.
- Section 19.—Authorizes the board to issue "orders in council" to protect American ships against unreasonable foreign competition, giving such "orders in council" the effect of law.
- Section 20.—Denies entry to American ports of any vessel which grants "deferred rebates." or to a line which uses "fighting ships," or a line that retaliates against any shipper.
- Section 21.—Extends coastwise laws to insular possessions and territories of the United States on and after February 1, 1922.
- Section 22.—Closes coastwise trade to foreign ships.

  Section 23.—Exempts American steamship companies from the excess profits tax when such funds are invested in new shipbuilding.

- Section 24.—The mails shall be carried only on American vessels if practicable, and the postmaster general is authorized to make contracts to that end.
- Section 25—The American Bureau of Shipping is made the official classification agency for American vessels.
- Section 26.—American freight vessels permitted to carry not in excess of 16 passengers.
- Section 27.—Merchandise shipped between points in the United States must be transported only on American vessels, within certain limitations.
- Section 28.—Permits discriminatory inland rail rates on goods imported or exported in American ships.
- Section 29.—Provides law for the creation and encouragement of American marine insurance companies.
- Section 30.—Standardizes and protects the equity involved in ship mortgages.
- Section 31.—American seamen may demand and receive one-half the wages due them at any port an American ship stops; foreign seamen on foreign vessels are granted the same privilege in the ports of the United States.
- Section 32.—No seaman may receive a wage in advance of the time the same has been actually earned.
- Section 33.—Permits the recovery of damages by seamen for personal injury.
- Section 34.—Authorizes the repeal of treaties preventing the imposition of discriminating duties on goods imported in American bottoms.
- Section 35.--Powers delegated the board may be exercised through the Emergency Fleet corporation.
- Section 36.—If any portion of the law is declared unconstitutional it is not to abrogate the remainder or any part of the remainder of the act.
- Section 37.—Defines the meaning of certain terms used in the phrasing of the law.
- Section 38.—American corporations operating in the overseas trade must have a majority stock issue in the possession of American citizens. Coastwise corporations must be 75 per cent. cwned by Americans.
- Section 39. -Stipulates that this law is to be known as the "Merchant Marine Act, 1920."

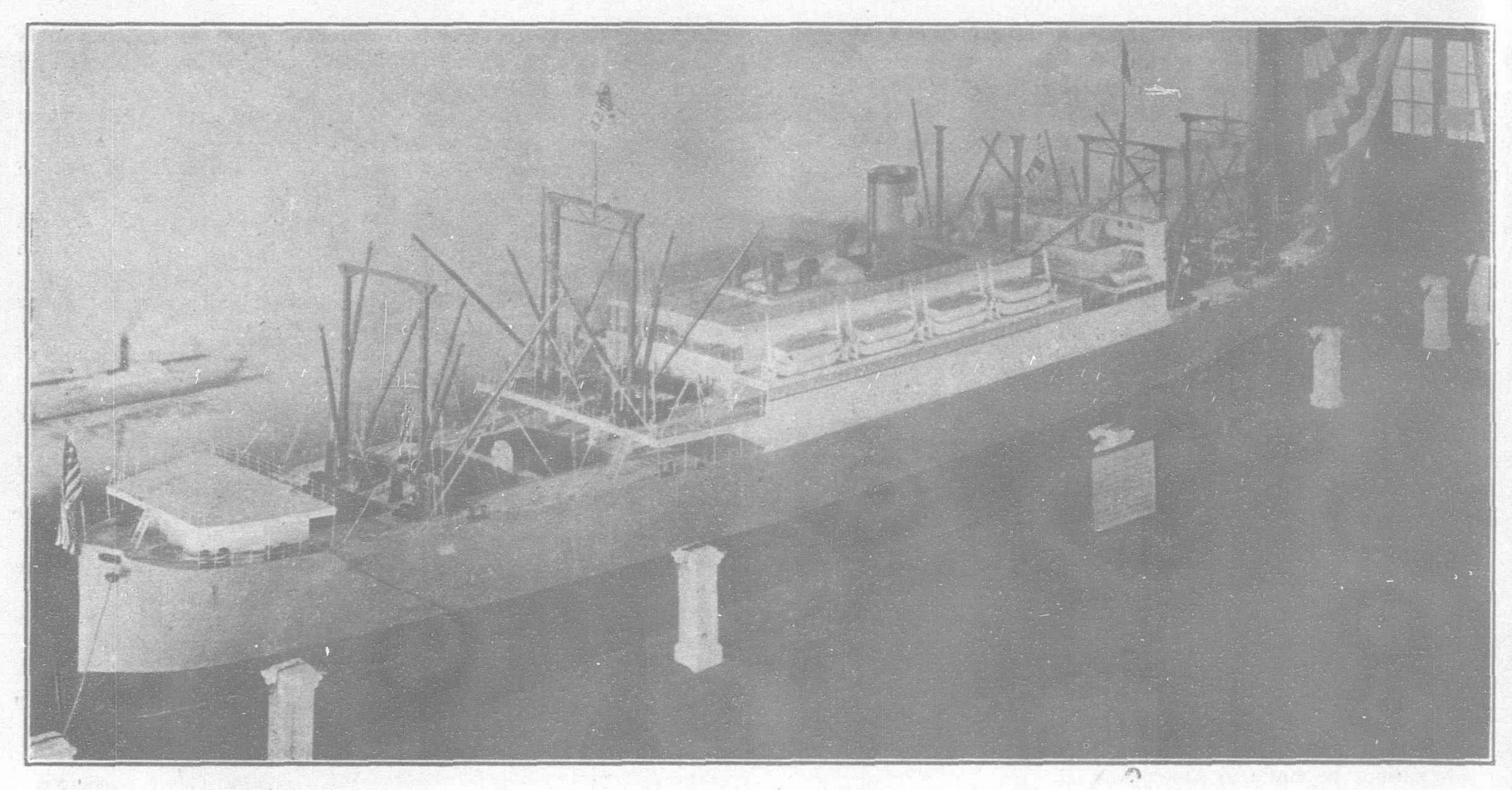
#### Passing of Government Building

So rapidly is the Shipping Board's programme drawing to completion that more tonnage is now under construction in American shippards for private account than for the government, says a statement issued by the Atlantic Coast Shipbuilders' Association. Building for private account took the lead in April and in June by 325,000 gross tons.

The rapidity of the shrinkage in Shipping Board construction has created a grave situation for the shipbuilding industry of the United States. Gains made by the shippards through securing private contracts have been eliminated by the reduction in government orders. Total building in June was nearly a million gross tons less than it was a year before and the outlook for the coming months is for a progressively increasing decline.

American shipyards last year, according to an analysis of the Shipping Board's returns, produced 5,318,800 gross tons, or at the rate of almost 360,000 tons per month. The aggregate of the work now in hand for both Government and private account is only 2,607,000 tons—about sufficient to keep the yards busy for eight months. As completions are exceeding new orders materially monthly, the prospect is that little work will be left in hand by the end of the year.

Some idea of the extent of the reduction in the Shipping Board's programme may be gained from the fact that while not one new keel was laid for government account during May, deliveries to the Shipping Board in the same period aggregated 170,940 gross tons. In April, 18,267 gross tons were laid down, but completions for that month were 335,872. On June 1 of last year the Board had under construction 3,584,000 gross tons, but at the beginning of June this year the figure had shrunk to 1,140,000 tons. And while not a ton of new Shipping Board work was begun in June of this year, new keels laid during the same month last year represented 423,000 gross tons.



(Courtesy of Pacific Mail S.S. Co.)

Model of New 535-foot American Passenger Steamship.

## New American Passenger Steamships for the Pacific

I—The 535-Foot Type

Vladivostok.

Y January, 1921, it is hoped that the first of the new fast American cargo and passenger steamships will be ready for service. The building program of the United States Shipping Board provides for the construction of a fleet of nineteen 17½-knot steamers of 13,500 gross tons and 535-ft. long, several of which

under construction in various American shipbuilding yards. These ships were originally intended for army transports or troop-ships, but with the signing of the armistice, the plans were changed and they are now remodeled into being and passenger cargo vessels for allocation on lines where they are most needed. The congestion in the Pacific passenger traffic, which has prevailed for the past four or five years has influenced the Emergency Fleet Corporation to allocate twelve of these vessels to this

The Pacific Steamship Company will get five of the ships to ply from Seattle to China, Japan and Vladivostok. The Pacific Mail Steamship Company will be assigned five for its service to Manila, Hongkong and India. The Matson Navigation Company will be allocated two for its run from San Francisco to Hawaii.

In addition to the two lines to the Orient from Seattle and San Francisco, four 535-foot ships may be allocated for the development of the service to Australia.

It is thought probable that some of the 14½-knot ships will be used on the Pacific Ocean between Seattle and

"535"-New Type of Passenger and Freight Steamer

to the Pacific Ocean service resulted from a concerted and powerful effort on the part of representative business of the Pacific bodies The need for Coast. these new vessels on the Pacific was forcibly set forth by Mr. Daulton Mann; the general manager of the Pacific Mail . S.S. Company in the fellowing statement covering the trans-Pacific passenger traffic carried by the various lines during the six months from April to September, 1919:

The allocation of these

· large passenger steamships

"Canadian Pacific Ocean Service, Ltd. 2,893 passengers
Toyo Kisen Kaisha ... ... 2,700 ,,
Nippon Yusen Kaisha ... ... 1,400 ,,
Osaka Shosen Kaisha ... ... 200 ,,

China Mail Steamship Company ... 900 passengers Pacific Mail Steamship Company ... 690

... 8,783 passengers

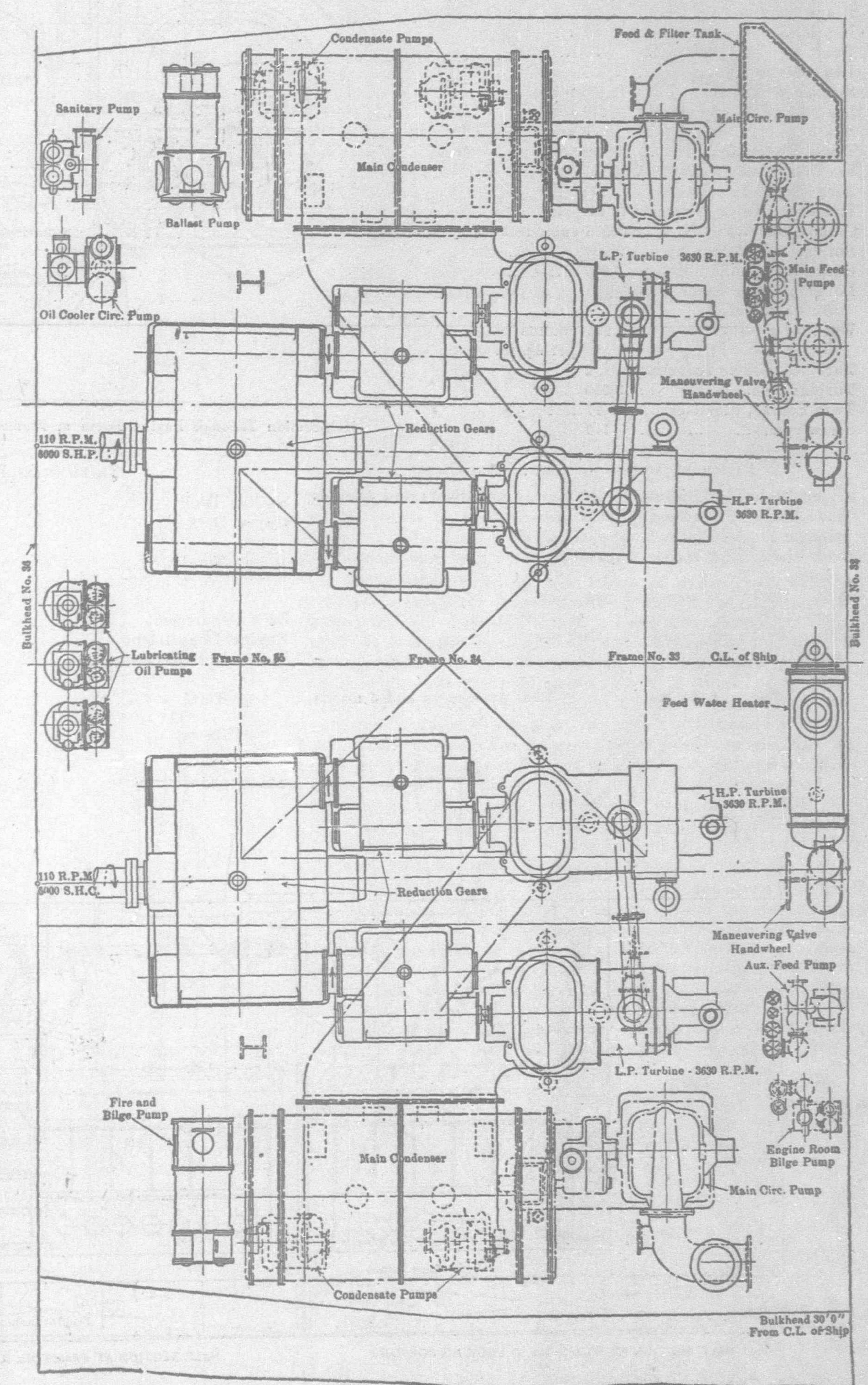
"It is seen that Japanese vessels carried 4,300 first-class passengers; British, 2,893; and American 1,590. The approximate percentage of nationalities of passengers are: American, 64 per cent.; British, French, Dutch and Russian, 17 per cent.; Japanese 7 per cent. and Chinese 12 per cent.

"The Pacific Mail Steamship Company is the only American-owned steamship line carrying passengers from the Pacific Coast to the Orient. While the China Mail flies the American flag it is admittedly owned and operated by Chinese. Aside from the Osaka Shosen Kaisha, the Pacific Mail carried the smallest number of passengers in spite of the fact that 64 per cent. of the travel in the above-mentioned period was by Americans. Also, it is a matter of fact that Japanese vessels carried practically 50 per cent. of the traffic, although about 7 per cent. of the total number of travellers were Japanese."

Mr. Mann adds that more than 2,500 passengers to Honolulu and the Orient, exclusive of the ever-increasing tourist traffic, did not sail during the above period because of insufficient passenger tonnage.

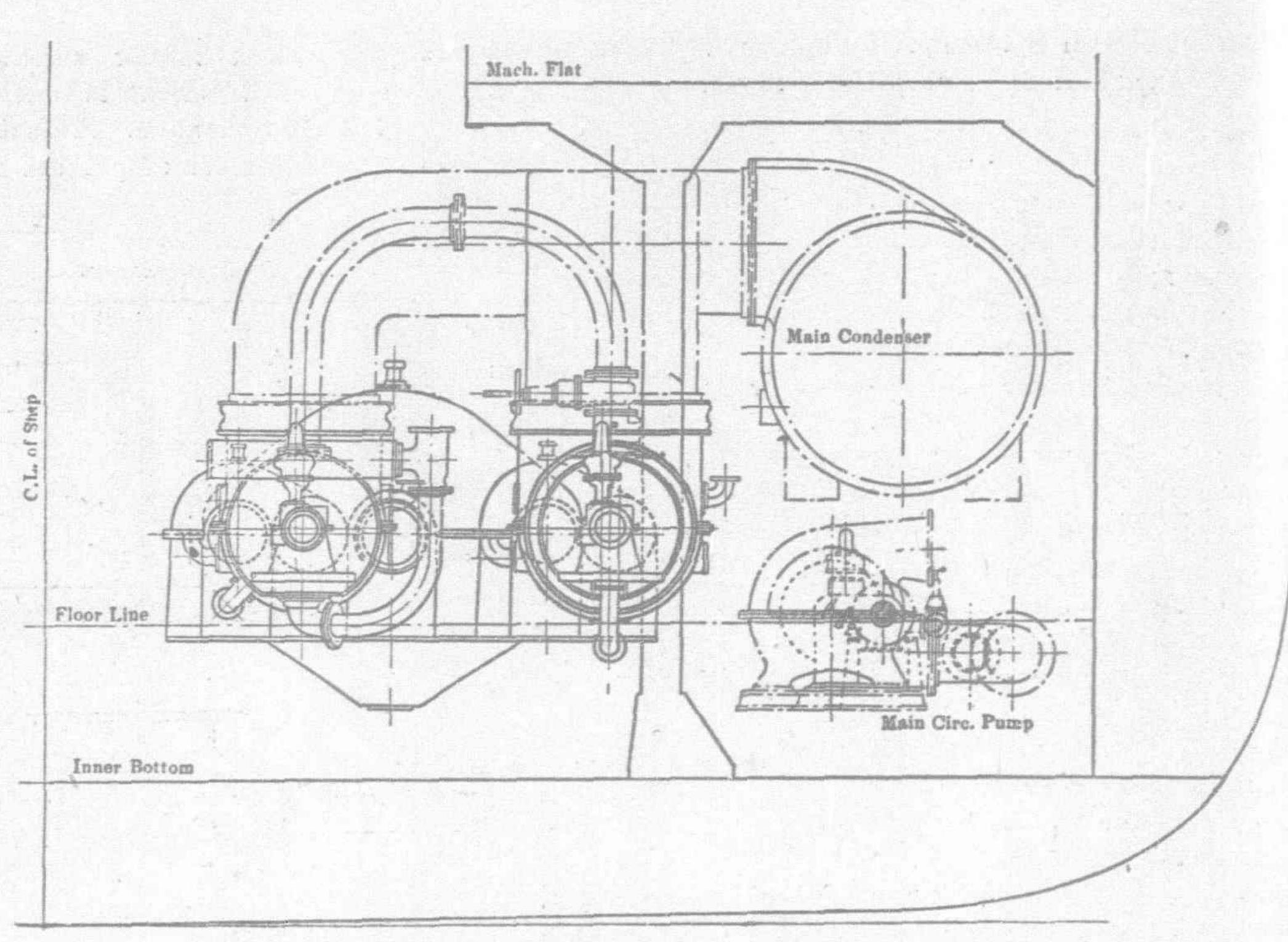
For some years to come, these steamers will therefore be called upon to maintain the American flag on the Pacific and compete with the larger and swifter British and Japanese vessels for the passenger traffic to and from the Far East. To meet this competition the new steamers are being luxuriously equipped with every comfort and accommodation and will compare favorably with the finest ships afloat. The cabin designs, furniture, draperies, decorations, etc., have been prepared by W. and J. Sloane & Company, of New York. Reference to the deck plans, reproduced in this number, will indicate that the arrangements for the comfort of the passengers are on a par with the finest trans-Atlantic liners. On the boat deck abaft the officer's quarters will be found a tea garden, open verandah, lobby, and writing room. On the bridge

deck is the smoking room, social hall and private suites. This deck is enclosed in glass for half the length of the promenade. A feature of the first class staterooms is the large number of private baths on deck "A," or the shade deck.



Engine Room Plan of New American 535-Foot Type Passenger Steamship.

The official particulars of these vessels are as follows:—
Length over all 535 feet
Length between perpen-
diculars 518 ,,
Beam, moulded 72 ,,
내내 ) :
Depth to "A" deck 50 .,
Draft 30-ft. 6-in.
Deadweight tonnage 12,600
Steaming Radius 11,700 miles
Daily Coal Consumption 112 tons
Sea Speed 17 knots
Horse Power 12,000
Fuel Oil Capacity 3,267 tons
Feed Water Capacity 213 ,,
Drinking Water Capacity 651 ,,
Cargo Capacity455,536 cubic feet
CT . 1 1 1 C CCC
Ship's cold storage 9,900 ,, ,, Cargo cold storage 3,950 ,, ,,
Boilers; Babcock and Wil-
cox water tube 8
Working pressure 265 pounds
per sq. 1n.
Turbines, double reduction 2
Turbine rpm 3,630
Twin Screws, diameter 17 feet
Screw rpm 110



Half-Section Through Engine Room at Frame 33, Looking Aft

#### PASSENGER ACCOMMODATIONS; FIRST CLASS

	000.000				
Bridge Deck:				4 passengers	and 4 maids
Shade Deck: room				87 ,,	
Shade Deck:	2 rooms-2	pass	per		
room Shelter Deck:					
room			***	96 ,,	
Shelter Deck:	29 rooms—2	pass	per		

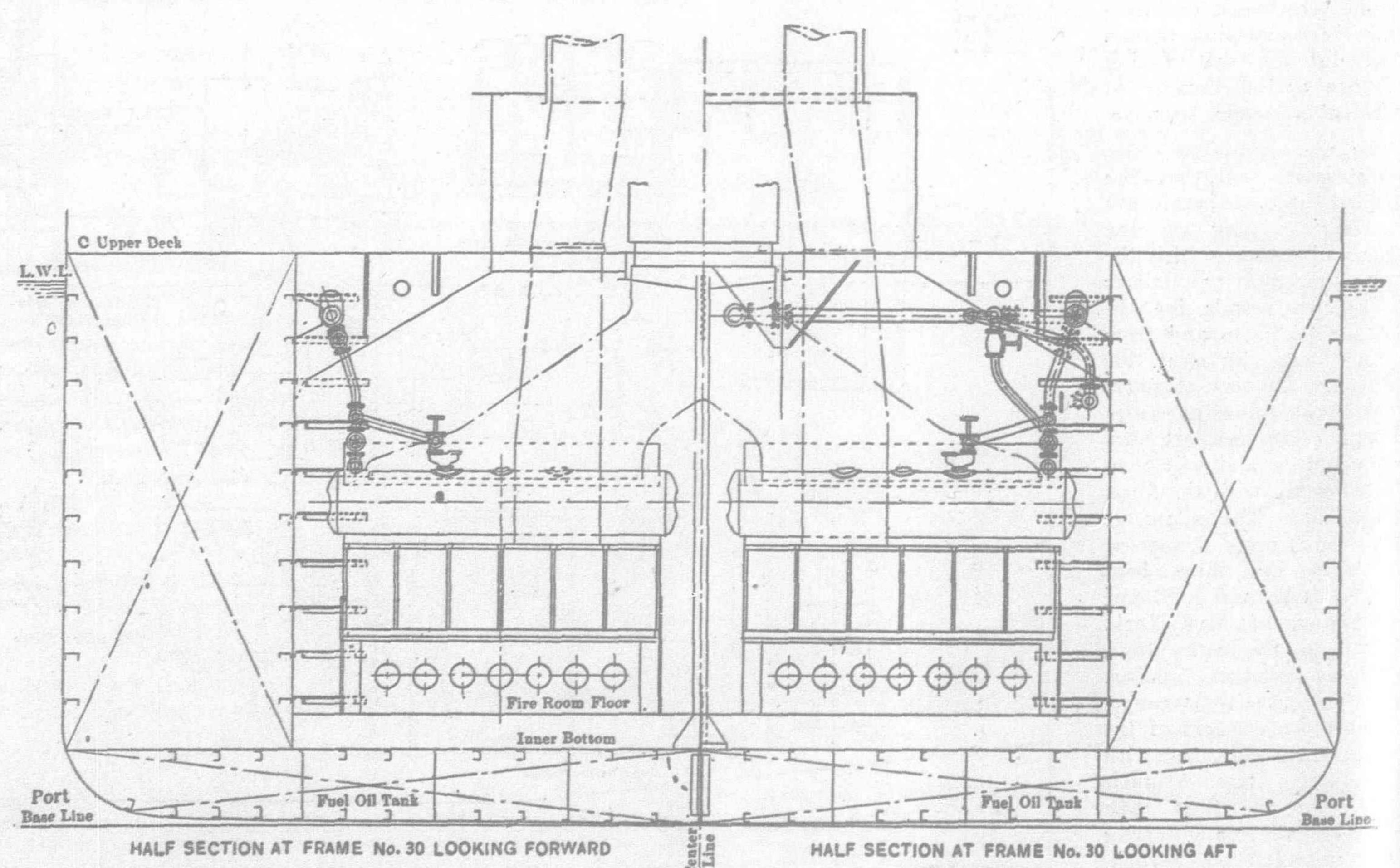
room ... ... ... 58 ,,

Total: 94 rooms ... ...249 passengers and 4 maids

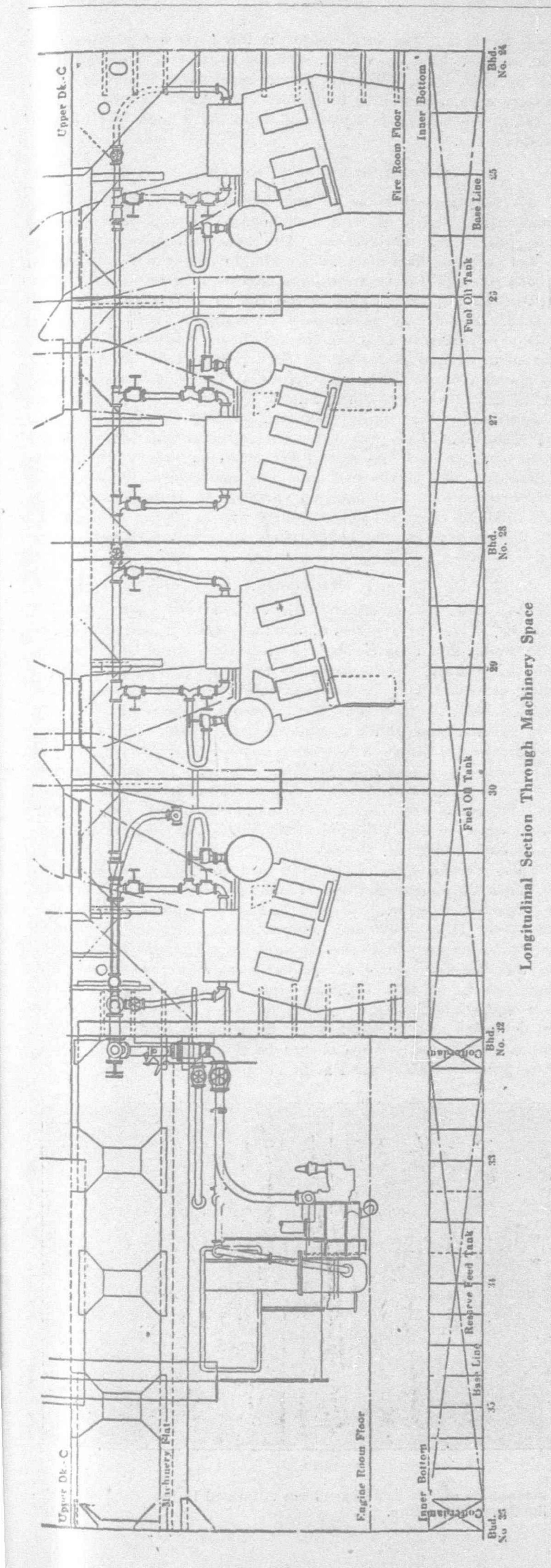
#### THIRD CLASS PASSENGERS.

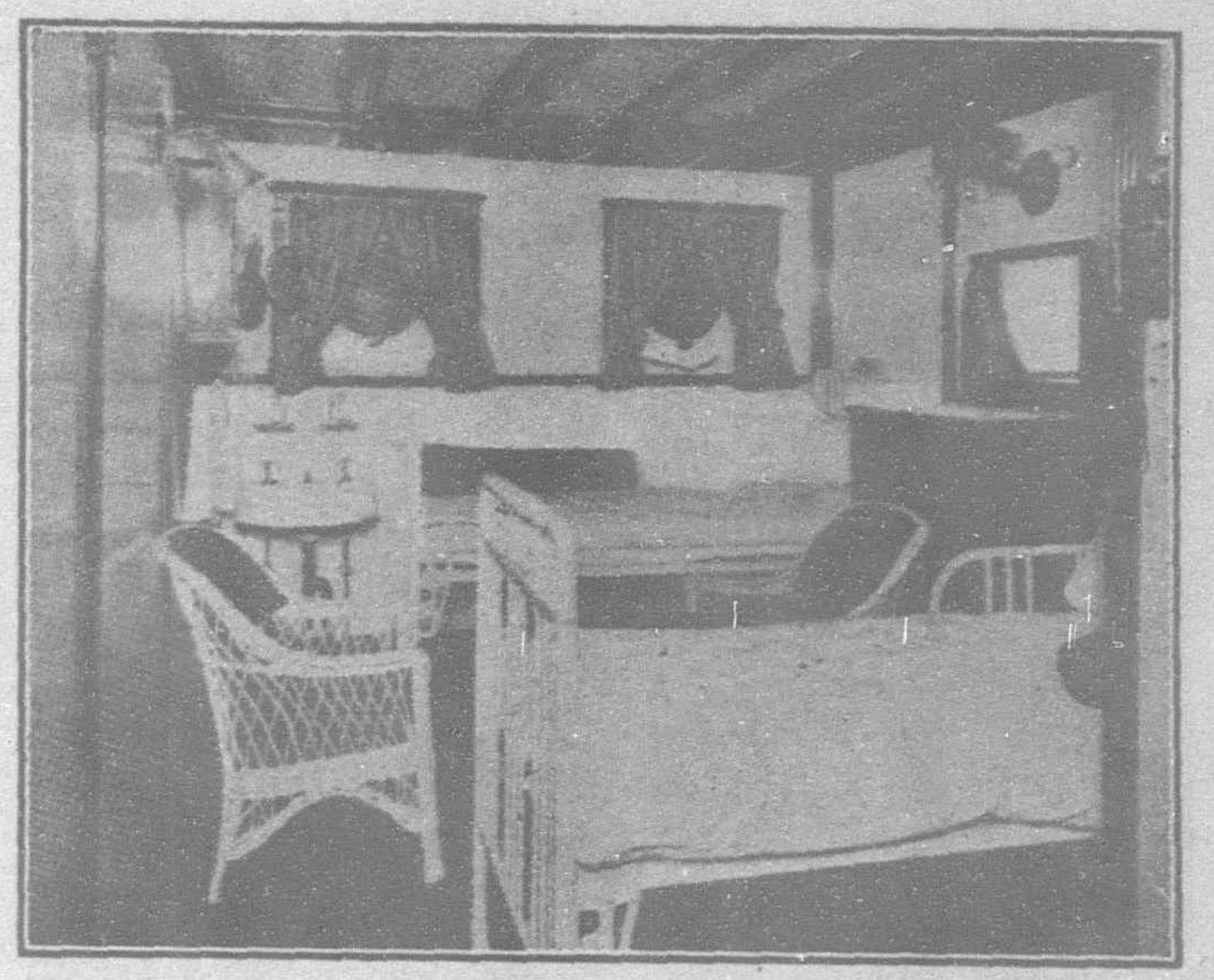
de	Shelter I		***		***	170	passengers	
	Upper D	eck	***	***	***	130	29	
	T	otal	***	***	***	300	passengers	
					CREW.			
-	Deck Dep			***	***	33		
	Engine I			***	***	46		
-	Stewards	Departn	nent	***		117		
						-		

Total



Section Through Boiler Room





Interior of model stateroom for Shipping Board passenger liners

#### LIFE BOATS.

26-ft.	lifeboats	•••		14
24-ft.	Motor lifeboats		***	2
Work	boats, 18-ft			2

The first of these steamers, the Wenatchee has been launched at the yards of the New York Shipbuilding Corporation at Camden, N.J., from which company the following additional particulars have been obtained:—

The hull is built on the Isherwood system, with thirteen transverse bulkheads, which divide it into fourteen watertight compartments. A double bottom extends throughout the length of the vessel. For three-fifths of the length amidships, there is an outer keel 52-in. by .96-in., and an inner keel 381-in. by .74-in. while at the ends the keel is reduced to a single plate .84-in. thick. The centre girder is 50-in. deep and .64-in. thick amidships reduced to .50-in. at the ends and increased to .68-in. in the boiler space. The centre girder is joined to the keel by double continuous angles 6-in. by 6-in. by .56-in. reduced to .50-in. at the ends, and to the tank top by double continuous angles 3½-in. by 3½-in. by .58.-in. reduced to .54-in. at the ends, and increased to .68-in. in the boiler space. On each side of the centre girder there are three side girders of .46-in. plate amidships reduced to .40-in. at the ends and increased to .46-in. in the boiler space.

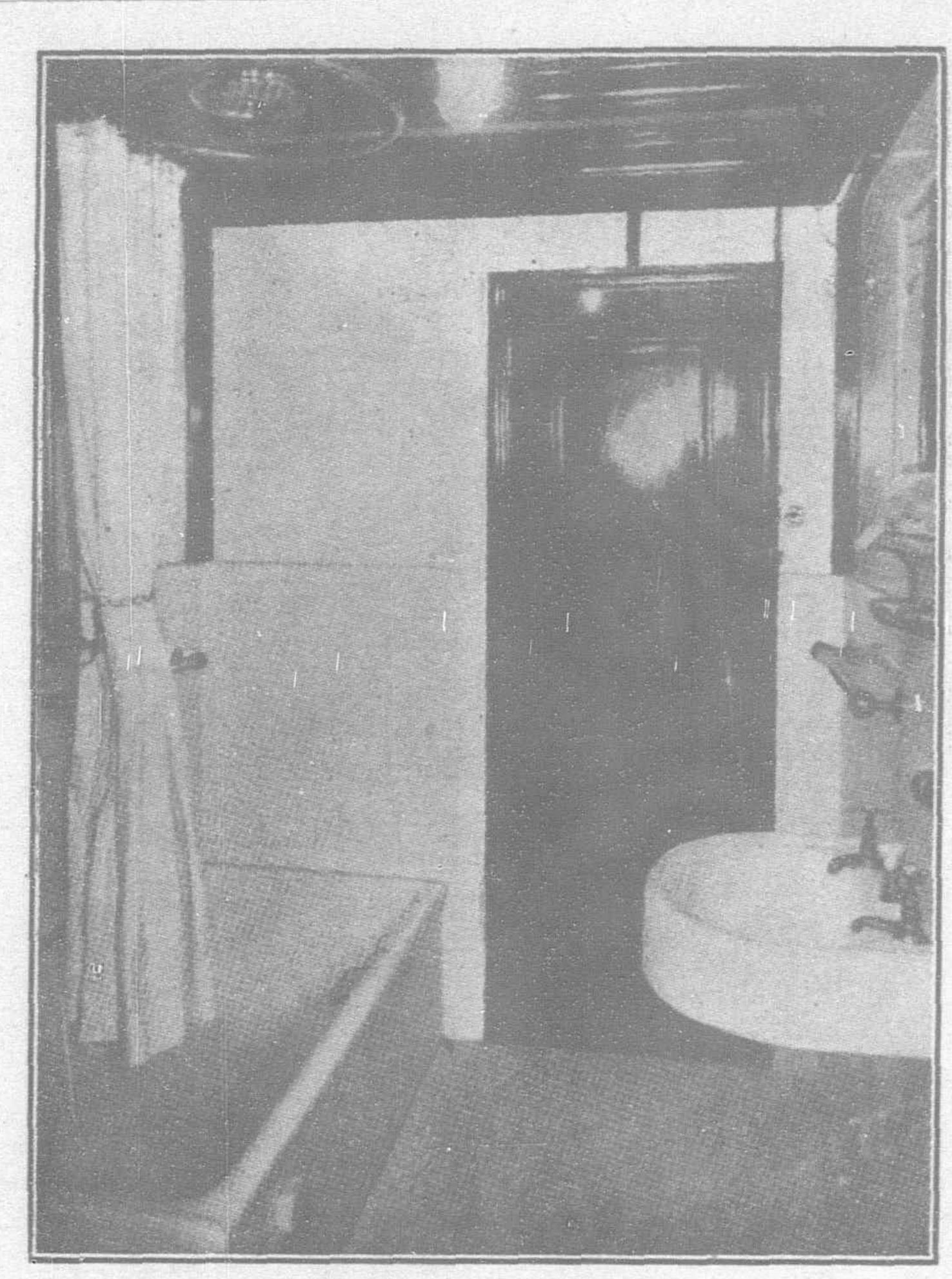
The bottom plating is .74-in. to .52-in., and the side plating .70-in. for one half length reduced to .48 at the ends. The sheer strake at the shade or "A," deck is .88-in. for one-half length reduced to .48-in. at the ends. The tank top plating is .48-in. to .42-in. thick, increased to .58-in. in the engine room and to .62-in. in the boiler space. The margin plate, which extends straight out to the side of the vessel is .56-in., increased to .60-in. in the boiler space. The deck plating and stringers are as follows:—

Deck.			Plating.	Stringer.
A Shade			.50-in. to .38-in.	.74-in. to .46-in.
B Shelter	•••		.44-in. to .32-in.	.48-in. to .46-in.
O Upper		***	.36-in. to .32 in.	.42-in.
D Main		***	.34-in. to .30-in.	.40-in.

#### LONGITUDINALS AND TRANSVERSES.

The longitudinals are all of channel sections of the following sizes:—

Nos.	1 :	and	2:	6-in.	by	.35 in.	by	3.5-in.	by	15	pounds	
Nos.	3		4:	7-in.	by	.313-in.	by	3.313-in.	by	15.6	19	
Nos.	5	22	6:	7-in.	by	.438-in.	by	3.438-in.	by	18.6	>>	
Nos.	7.	8.	9:	10-in.	by	.375-in.	by	3.375-in.	by	21.8	73	
Nos.	10	-11		10-in.	by	.475-in.	by	3.47-in.	by	26.4	93	
No.	12			10-in.	by	.50-in.	by	3.50-in.	by	27.2	>>	
No.			:	10-in.	by	.55-in.	by	5.55-in.	by	28.9	33	



Interior model bath room, United States Shipping Board passenger liners

Bottom: 7-in. by 3.438-in. by 3.438-in. by 18.6 pounds.
Shade, Shelter and Upper Decks: 6-in. by 3.5-in. by 3.5-in. by

15 pounds.

Main Deck: 7-in. by 3.313-in. by 3.313-in. by 15.6 pounds.

Tank Top: 7-in. by .35 by 3.35 by 16.5 pounds.

The transverses, spaced 9-ft., 6-in. apart and fitted with an angle face bar 6-in. by 4-in. by .70-in. throughout, are made up as follows:—

		Side.	Deck.		
Shade Deck	 	18-in. by .44-in.	13-in. by .44-in.		
Shelter Deck		20-in. by .44-in.	13-in. by .44-in.		
Upper Deck	 	22-in. by .44-in.	13-in. by .44-in.		
Main Deck	 	31-in. by .50-in.	14-in. by .44-in.		

The floors are .48-in. amidships, reduced to .42-in. at the ends and increased to .54-in. in the boiler space. The angles connecting the floors to the bottom and tank up top plating are 3.5-in. by

.52-in. to .48-in. For cargo handling there are five hatches 19-ft, wide by 30-ft. long; two 19-ft. wide by 24-ft. long and two 19-ft. wide by 18-ft. long. They are served by 32 cargo booms of 6 tons capacity each, and one 30 ton boom. There are thirty-two 94-in. by 12-in. winches, each capable of handling a load of 5 tons on a single whip.

#### HIGH GRADE FURNITURE.

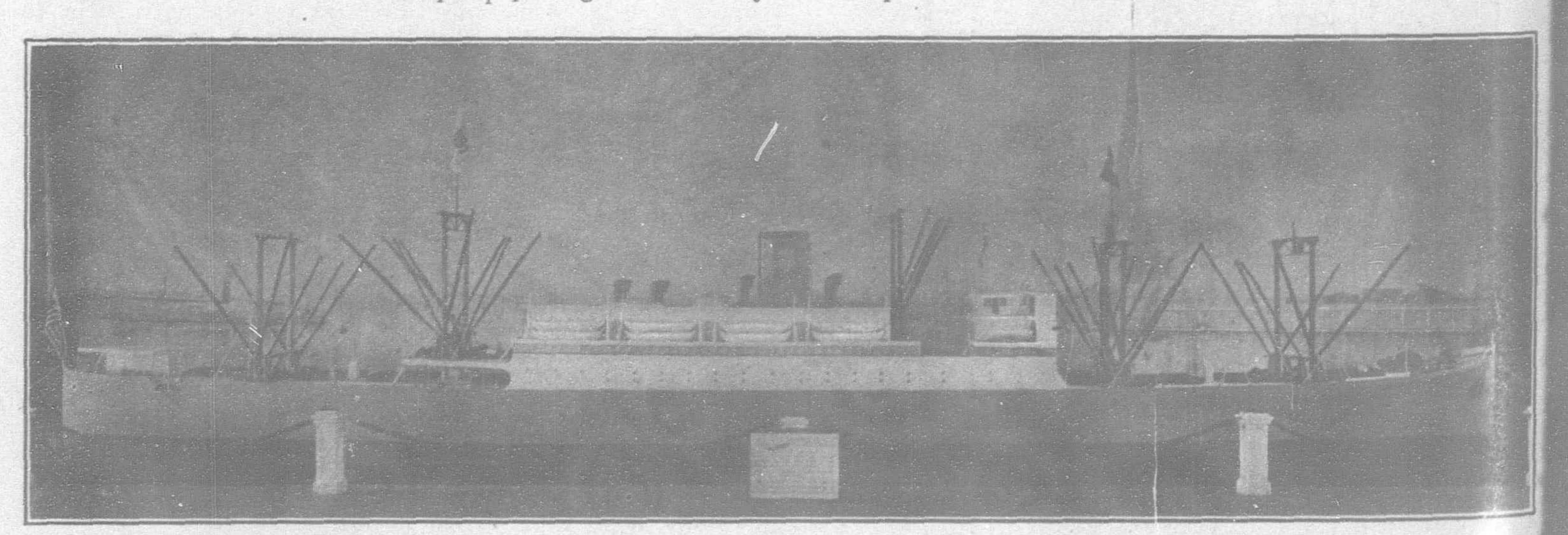
All furniture will be of the highest grade. The private suites will be equipped with a mahogany writing desk, dressing table, bed, bench and bureau. The beds will have special box springs and long hair mattresses. The doors to the dining saloon, on both sides, will have a complete mounting of imitation leather. Built-in serving tables and sideboards of heavy mahogany will be used. The dining saloon will be equipped with both round and square tables, of heavy mahogany, firmly fastened to the deck. Tobasco or Honduras mahogany furniture will be fitted into the first class quarters. This will include all tables, mirrors, bureaus, bed racks, thermos bottle brackets, chiffoniers, lavatories, etc. In addition wicker chairs, enameled moss green, with seat and back cushions will be provided. The settee berths and wardrobes are to be built in. The state berth cushions will be upholstered in tapestry. The berths will have hair mattresses. Nickle-plated brass curtain rods with hanging curtains of white, heavy, home spun linen carrying a colored design will be used. Brussels carpets are planned in the small rooms and Wilton carpets in the larger rooms.

#### MACHINERY.

The vessels will be fitted with twin serews, each 17-ft. in diameter, driven by two sets of double reduction geared Westinghouse double-flow type turbines, at a normal speed of 110 revolutions per minute, developing 6,000 horse-power on each shaft or a total of 12,000 H.P. De Laval double reduction gears will be installed abaft the turbines. With a steam pressure of 250 pounds at the turbine chest and a vacuum of 28-in. at the turbine exhaust the turbines are designed to run at a speed of 3,630 rpm., driving the propeller at a speed of 110 rpm. Steam is furnished by eight oil fired Babcock and Wilcox marine type water tube boilers operated under the closed stokehold system of forced draft developing a working pressure of 265 pounds per square inch and superheated 75 degrees.

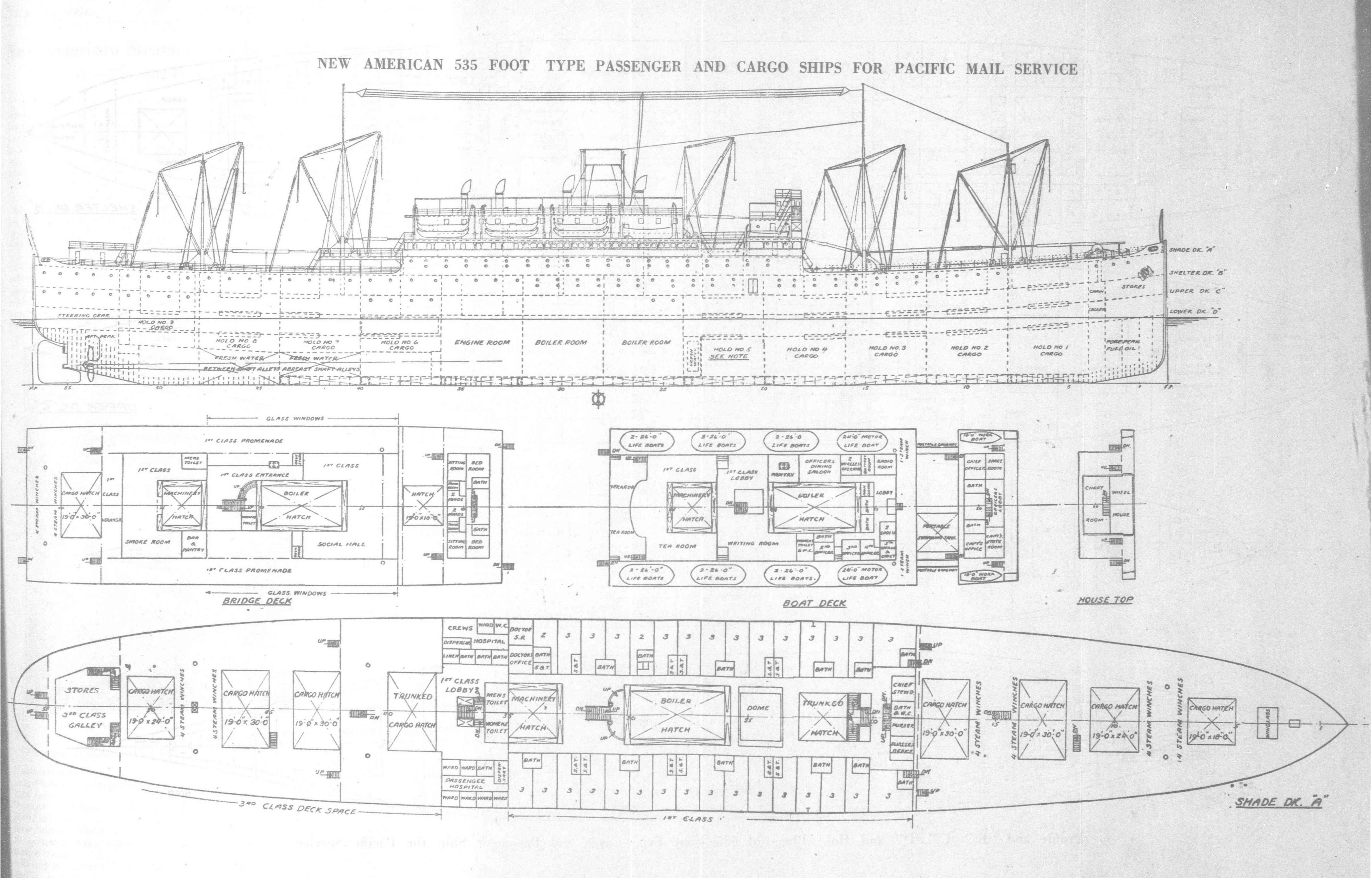
Three vessels of the above type building at the yards of the New York Shipbuilding Corporation at Camden, N.J., are called the American Legion, Sea Girt and Wenatchee. The Newport News Dry Dock and Shipbuilding Company is building the Golden State, and the Bethlehem Shipbuilding Corporation the Hawkeye State at its yards at Sparrows Point, Md. Other vessels of this type are the Palmetto State, Keystone State and Golden State. None of these vessels have as yet been delivered and although work is being rushed to complete them as rapidly as possible it will be several months before they

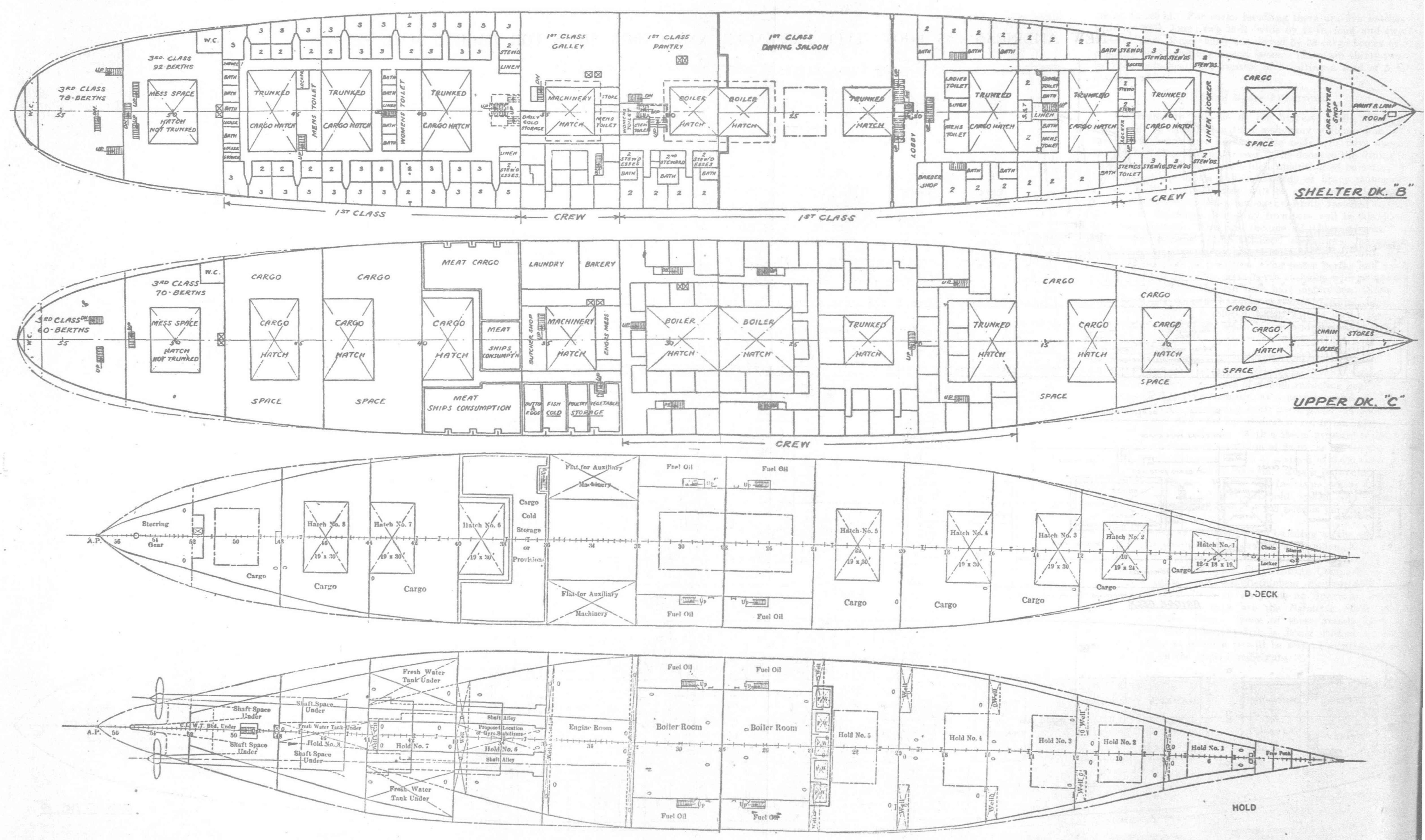
can be placed on the trans-Pacific runs.



(Courtesy of Pacific Mail S. S. Co.)

Model of New 535-Foot American Passenger Steamships. Five Steamships of this Type have been Allocated to the Pacific Mail S. S. Company, for the Japan-China Run.

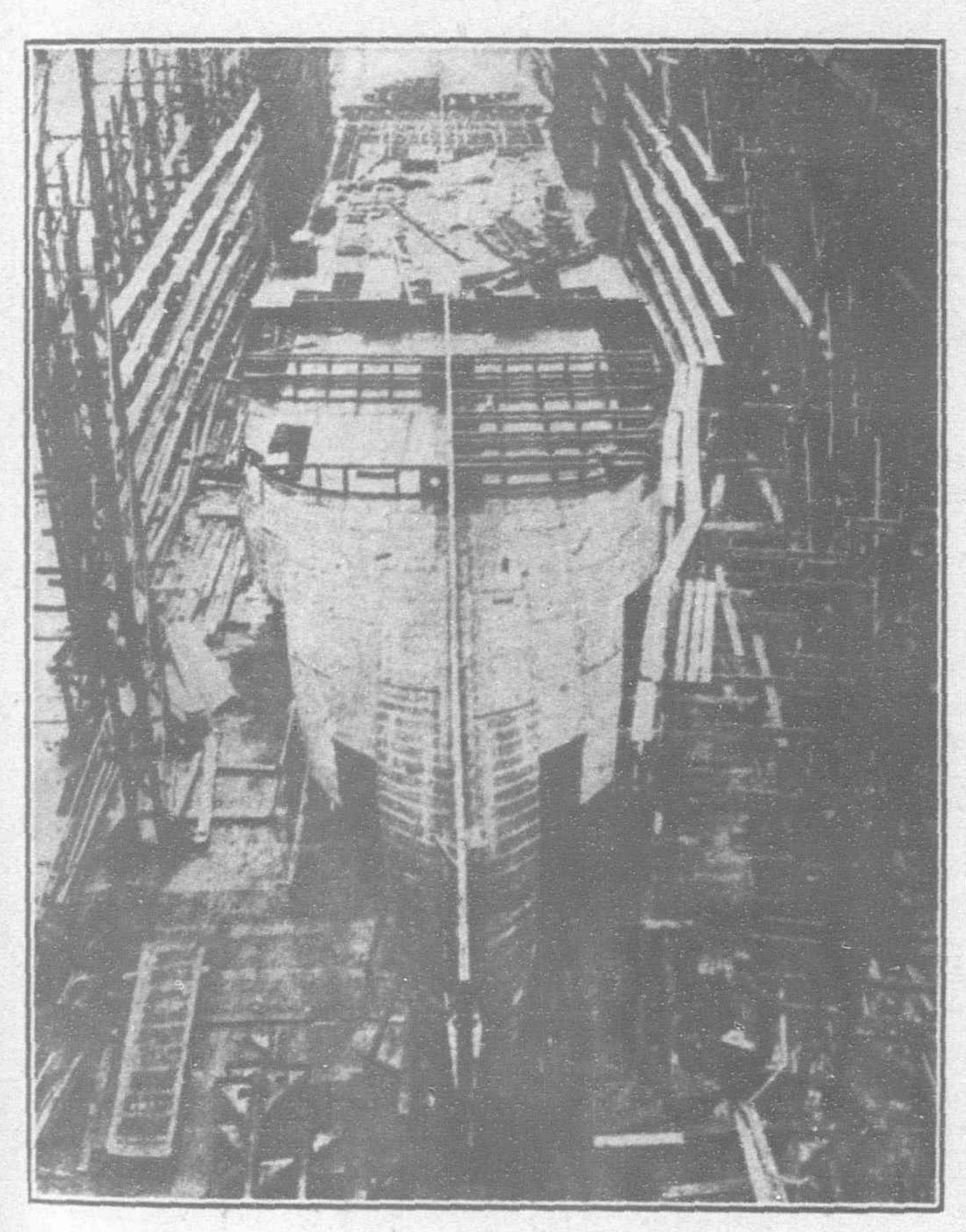




Profile and "B," "C," "D" and Hold Plans of 535 Foot Type Cargo and Passenger Ship for Pacific Service

## New American Steamers for the Pacific II.—The 502-Foot Type

In addition to the fleet of 535-foot passenger and cargo steamers now under construction in various shipbuilding yards for the United States Shipping Board, the New York Shipbuilding Corporation is building three of the new twin-screw 502-foot type at their Camden works. The ships of this fleet are designed for cargo carrying with a limited though elaborate passenger space Although none of these steamers have as yet been officially allocated to the Pacific trade, it is contemplated that several will be placed on the run from Pacific Coast ports to Vladivostok and other secondary itineraries. These vessels are all designed to burn oil and to have a service speed of 14 knots with a steaming radius of 15,000 miles. They will have accommodations for 84 first-class passengers in staterooms located on the promenade, bridge and "A" decks. These staterooms will be finished in white enamel with mahogany trim and fitted with white enamelled square metal tubing beds. The general design of the public rooms will be typically American, the dining saloon being finished in the colonial, and the smoking room in fumed-oak mission style. The social hall will follow the Adams design. These vessels are not fitted for carrying third-class passengers.



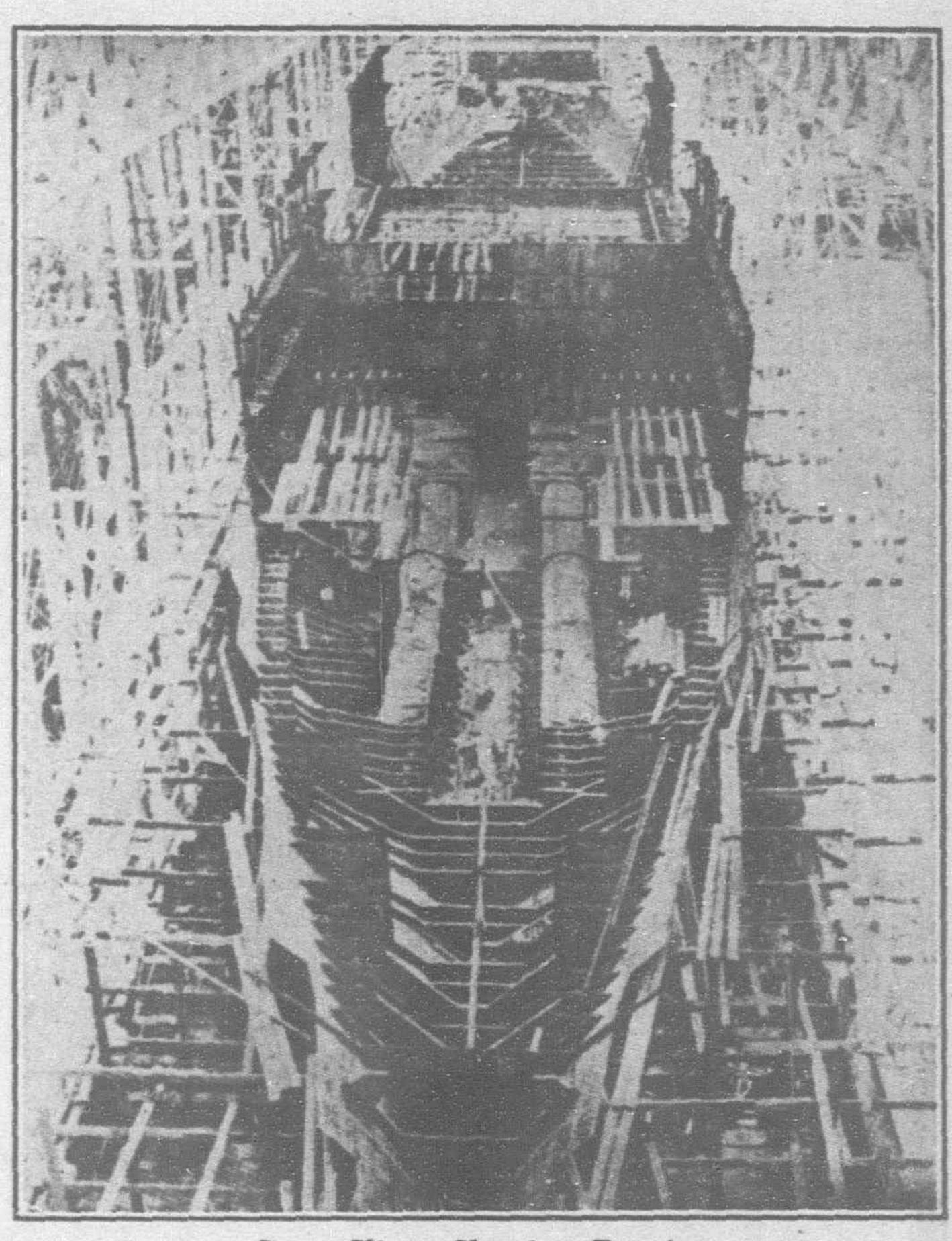
Bow View, Showing Double Bottom

The principal particulars of these vessels are as follows:

Length overall			•••		522	feet 5 inches	
Length between perpen	dicula	rs		***	502	,,	
Beam, moulded		***			62	"	
Depth to "A" deck	***	***	***		42	"	
Draft, summer	***	***			31		
Gross tonnage, about	***			1444	10,500		
Deadweight tonnage, al	oout		***	***	12,000		
pervice speed	***	***	***	***	14	knots	
indicated horsepower		***			6.000		
ruel on capacity	***	***			3,476	tons	
Doller feed water		143			215	53	
Domestic water	***	***	***	***	241	33	
						TANK OF A SALES OF THE SALES OF	12

Bale capacity				•••	465,940	cubic	feet
Ship's cold storage				***	5,300	22	23
Cargo cold storage	•••	***			52,300		22
Number of first class pa	asseng	ers	***	***	78		
Number of crew	•••			***	115		

The equipment for handling cargo is unusually complete. In all there are nine large cargo hatches; five are 17 feet 6 inches by 25 feet, two are 19 feet by 20 feet, one is 18 feet by 15 feet, and one is 17 feet 6 inches by 15 feet. In addition there are two smaller hatches 8 feet by 15 feet, used for the refrigerated space.

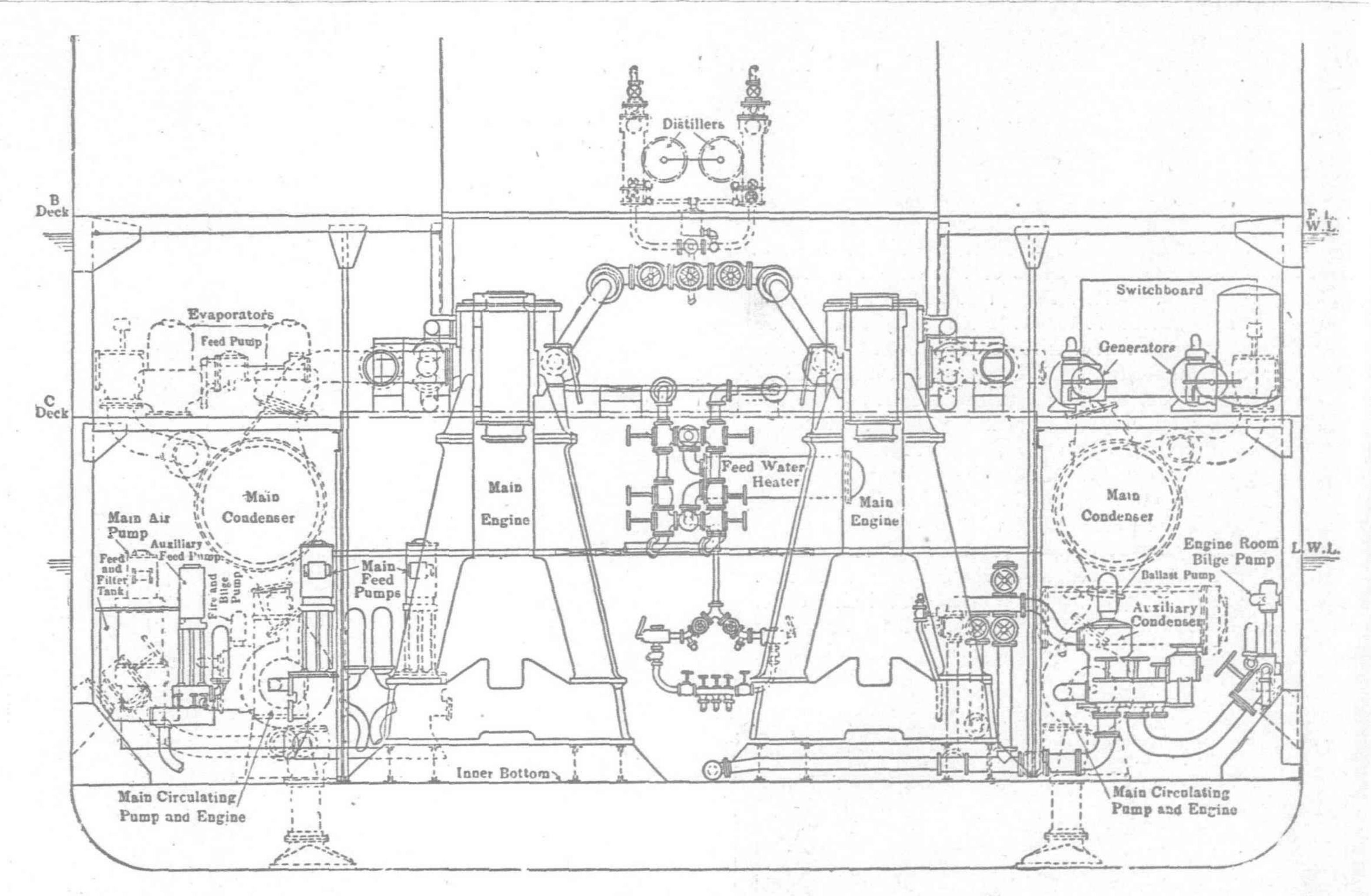


Stern View, Showing Framing

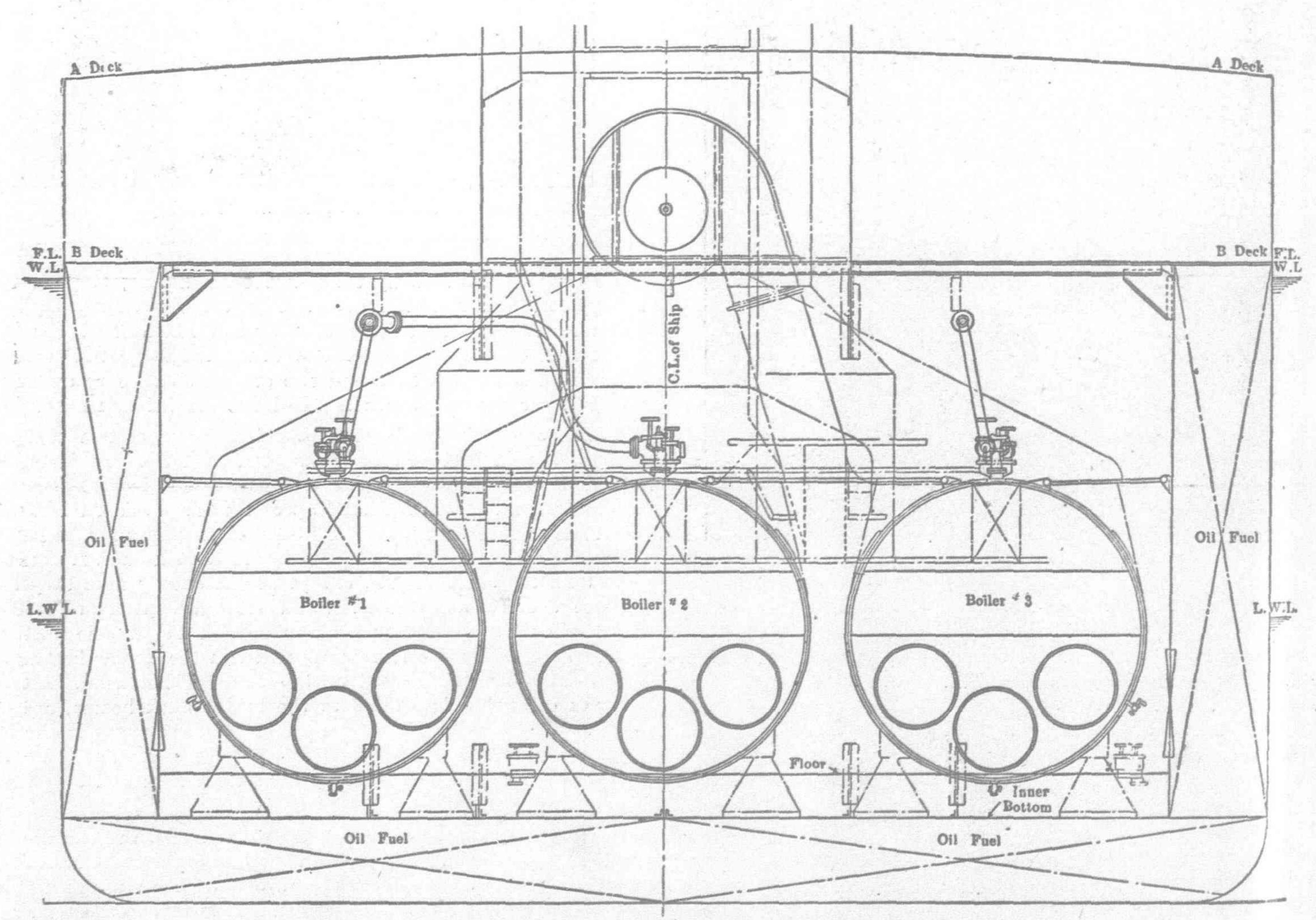
The cargo is handled by thirty-two 6-ton booms, stopped to ten kingposts, and a 30-ton boom. The cargo handling equipment includes twenty steam winches, sixteen of which are of the 81-inch by 8-inch double cylinder, single drum, single geared, reversible type with one winch head and two other winches forward and two aft of the same size, but with two large winch heads each.

These vessels are built on the transverse system of framing with a double bottom throughout, and with the hull further subdivided into 14 watertight compartments by 13 transverse bulkheads, all of which extend up to the "A" deck. Amidships the hull has no sheer. "B" and "C" diks have no camber, but all weather decks have a camber of 15 inches in 62 feet. The frames above the tank top are channels, except at the ends, where they are of angles with reverse frames. Solid floors are fitted in the double bottom on every third frame and beyond the double bottom on every frame. Double frames are fitted in the double bottom from three-fifths length forward to the collision bulkhead. Alternate frames of angles, bracketed to the bridge deck beams, are fitted in the bridge. All of the frames and reverse frames in the peaks rum clear up to the poop and forecastle decks. The frames are cut and bracketed in way of all watertight flats and over fuel oil bunkers.

No web frames are fitted in the cargo holds, but two are fitted in the engine room, and others in the fuel oil bunkers in the boiler space as needed. The decks are all plated with steel with channel beams on every frame. The cargo holds are free of pillars, as the decks are supported by heavy girders.



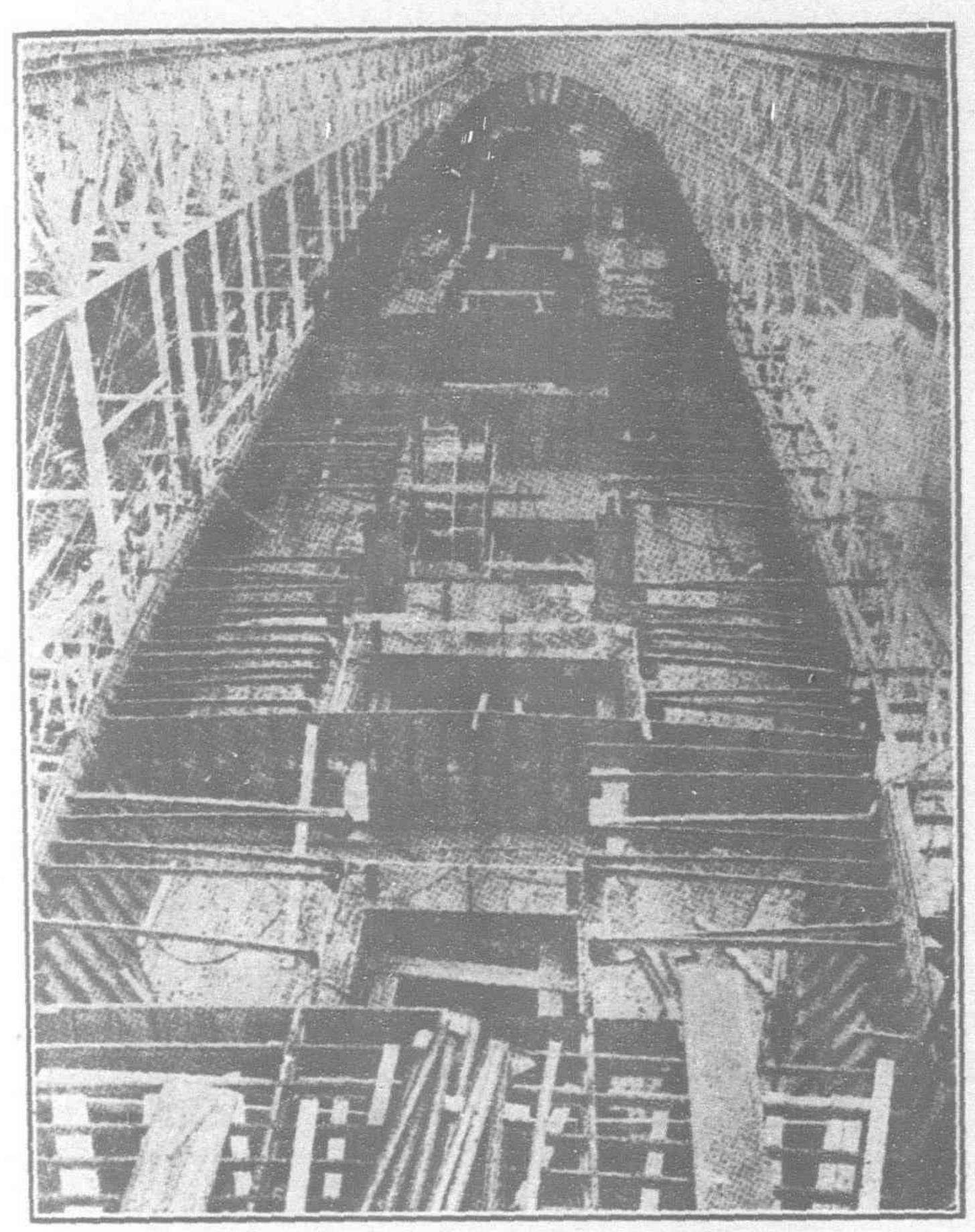
Section Through Engine Room



Section Through Boiler Room, 502-Foot Type Steamship for Pacific Trade

#### COLD STORAGE COMPARTMENTS.

Ample cold storage space is provided as shown on the plans, there being separate compartments for meats and vegetables, etc. The former are to be maintained at 20 degrees F., and the latter at 40 degrees F. under tropical conditions. The walls and ceilings of the cold storage spaces consist of two thicknesses of 3-inch



Stern View, Showing Bulkheads

tongued and grooved yellow pine, two thicknesses of 2-inch cork, one thickness of 3-inch tongued and grooved yellow pine and finished on the inside with one thickness of 3-inch tongued and grooved spruce, each thickness of wood and cork being separated by two thicknesses of waterproof insulating paper.

In addition to the cargo winches already mentioned the deck machinery includes a steam windlass on the forecastle deck and steam, and hand-steering gear with telemotor control from the bridge.

#### PROPELLING MACHINERY.

Propulsion is by twin screws of the built-up type, about 16 feet 6-inches diameter driven by two sets of four-cylinder, triple expansion, vertical, inverted reciprocating engines with cylinders 24 inches, 40% inches, 54 inches and 54 inches diameter by 45 inches stroke, each of which is designed to develop at 105 revolutions per minute 3,000 indicated horsepower. Steam is supplied at 220 pounds per square inch by six oil-fired single-end Scotch boilers with a total heating surface of about 16,000 square feet working under a system of heated forced draught. The boilers are 15 feet 3 inches diameter by 11 feet 6 inches long between heads, each fitted with three 45-inch Morison corrugated furnaces leading to separate combustion chambers. The draft fans are driven by slow speed vertical single-cylinder reciprocating engines, of sufficient capacity to maintain a static pressure of 3 inches of water. The fuel oil is carried in bunkers fitted at the sides of the boiler space reaching from the tank top to "B" deck.

There are two independent main condensers, each with 4,500 square feet of cooling surface. Each condenser has a centrifugal circulating pump with 16-inch suction and discharge with a capacity of 5,000 gallons per minute against a head of 25 feet, driven by a single cylinder 10-inch by 10-inch vertical engine. The

air pumps are of the vertical twin-beam type with one steam and two air cylinders 14 inches and 28 inches by 18 inches. There is also an auxiliary condenser with 1,000 square feet of cooling surface mounted on combined air and circulating pumps.

#### PUMPS.

The following independent pumps are fitted:-

Two main feed, 14-in. by 10-in. by 24-in., vertical simplex.

One auxiliary feed, 10-in. by 7-in. by 24-in., vertical simplex.

One ballast, 10-in. by 12-in. by 12-in., horizontal duplex.

One fire and bilge and general service, 12-in. by 8-in. by 12-in., horizontal duplex.

One sanitary, 7½-in. by 9-in. by 10-in., horizontal duplex.

One engine room bilge pump, 6-in. by 7-in. by 12-in., vertical simplex.

Two fresh water, 7½-in. by 6-in. by 10-in., horizontal duplex. One drinking water 4½-in. by 3¾-in. by 4-in., horizontal duplex.

One evaporator feed, 7½ inches by 6 inches by 10 inches, horizontal duplex.

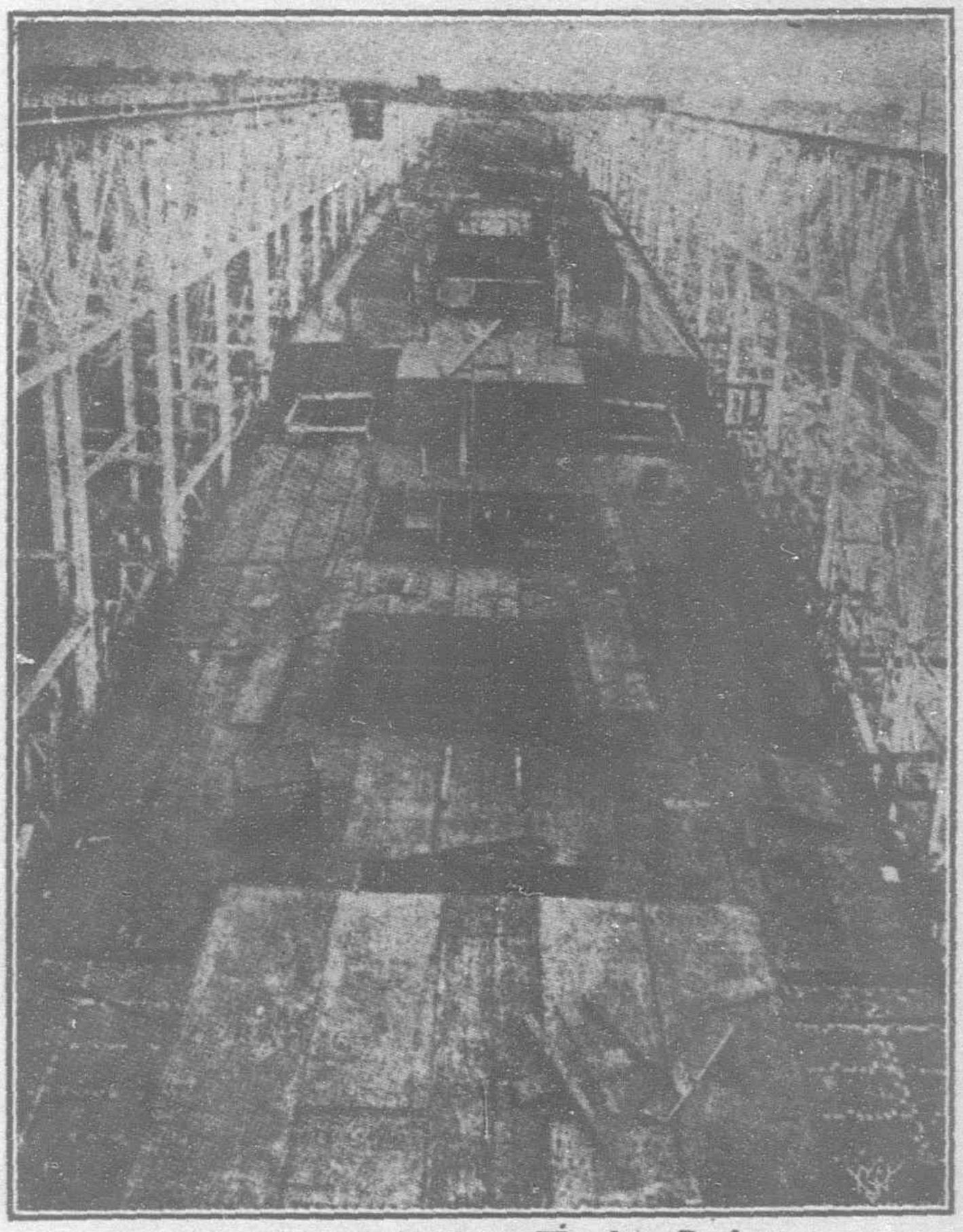
One auxiliary and circulating, 10 inches by 12 inches by 14 inches by 12 inches, horizontal simplex.

One oil transfer 7½ inches by 9 inches by 10 inches, vertical duplex.

Two oil service, 7½ inches by 4½ inches by 10 inches, vertical duplex.

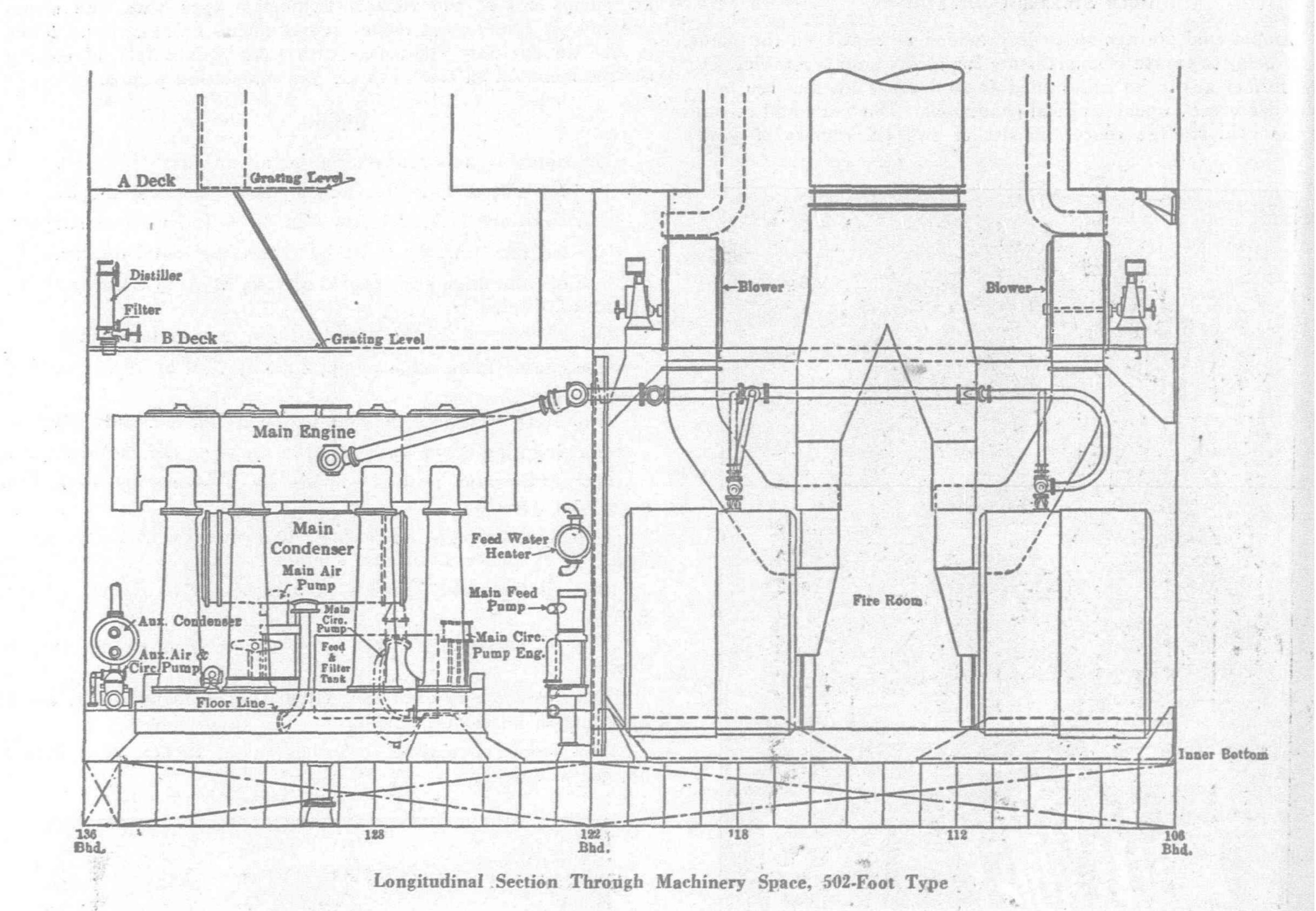
One ice machine condenser circulating, 6 inches by 5\frac{3}{4} inches by 6 inches, horizontal duplex.

One brine circulating, 6 inches by 5\frac{3}{4} inches by 6 inches, horizontal duplex.



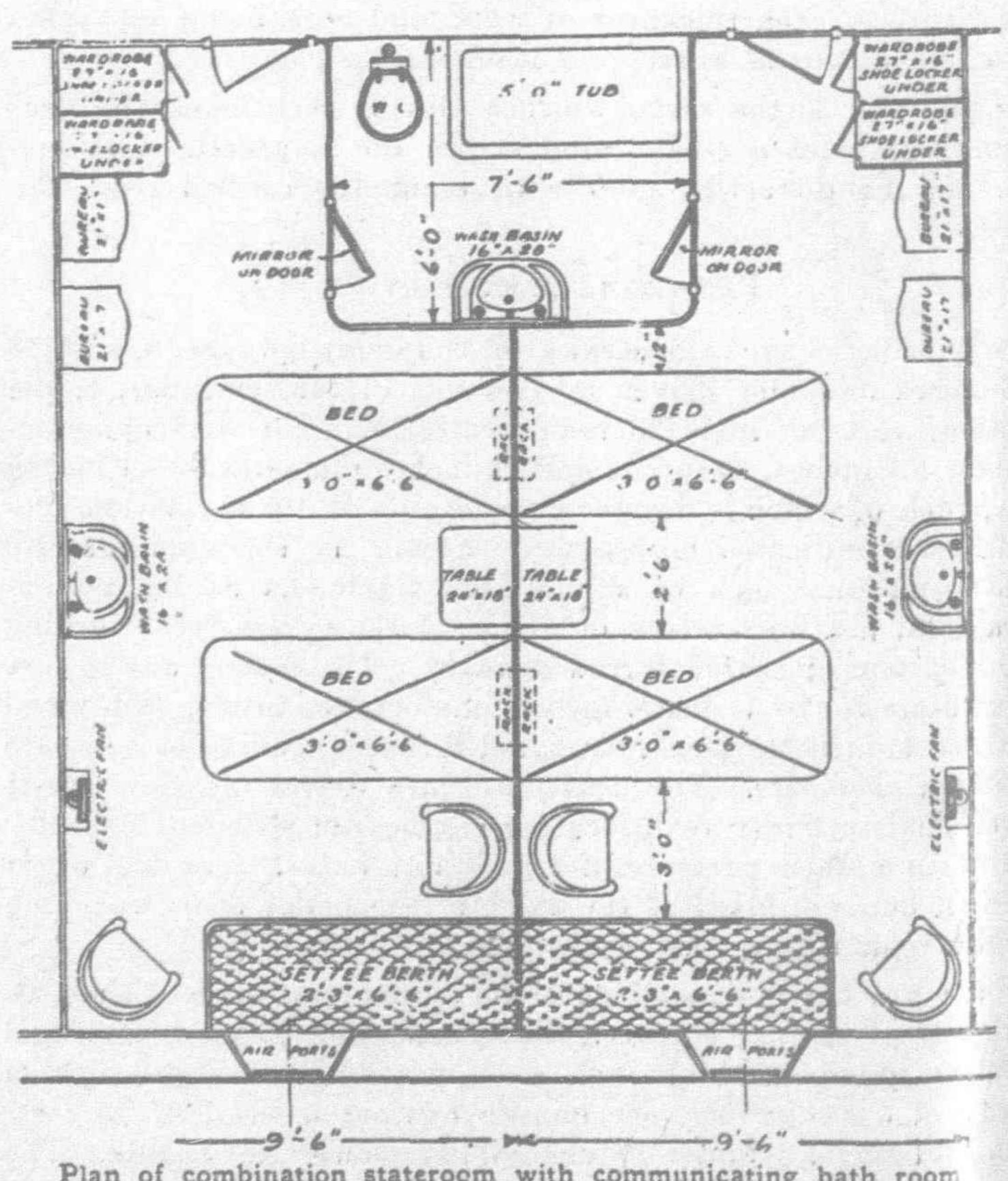
Stern View, Showing Weather Decks

The auxiliary machinery also includes a feed water heater with a capacity for heating 125,000 pounds of feed water per hour from 90 to 212 degrees F. when using exhaust steam at a pressure of 5 pounds per square inch gauge; two 25-ton evaporators; two distillers, each with a capacity for distilling 3,000 gallons of water per 24 hours, and a feed and filter tank of 1,400 gallons capacity in the engine room.



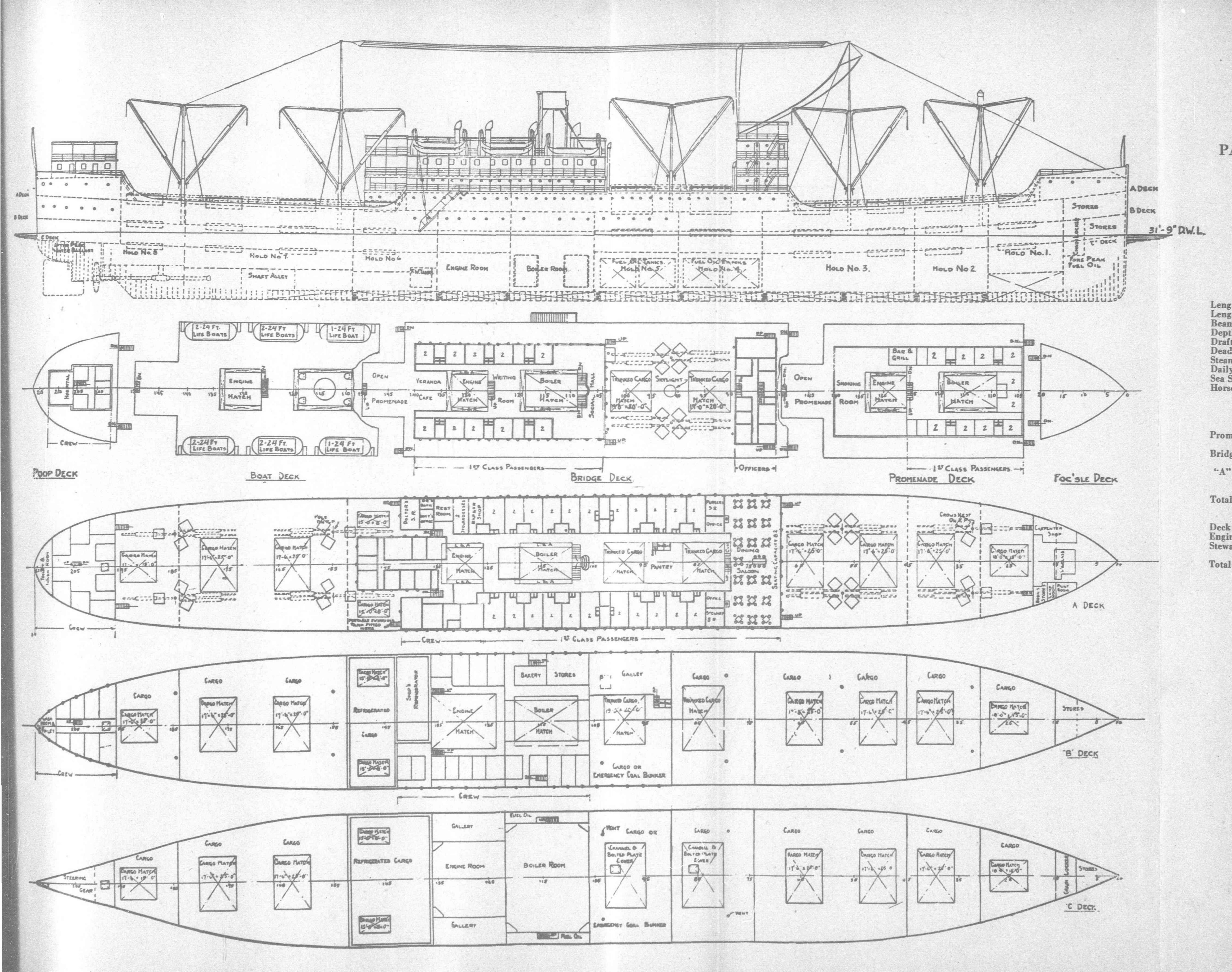
Passage SHOELDERAP WARD QUEE 27" - 16" SHOP I SCREE SHOWER UMDER WARDROBE 199 - 16 1998 LOLAR P UNDER MARTROB" SHOELOCKER UNDAR MIRROR ON DOOR M.RRON CH DUOR 24" A16" 24" A16 0 ×6 6

Plan of combination double staterooms with individual shower baths



Passage

Plan of combination stateroom with communicating bath room



#### PASSENGER & CARGO SHIP 502 FOOT TYPE

NEW YORK SHIPBUILDING CORP.
CAMDEN, N. J.

#### VESSELS OF THIS TYPE

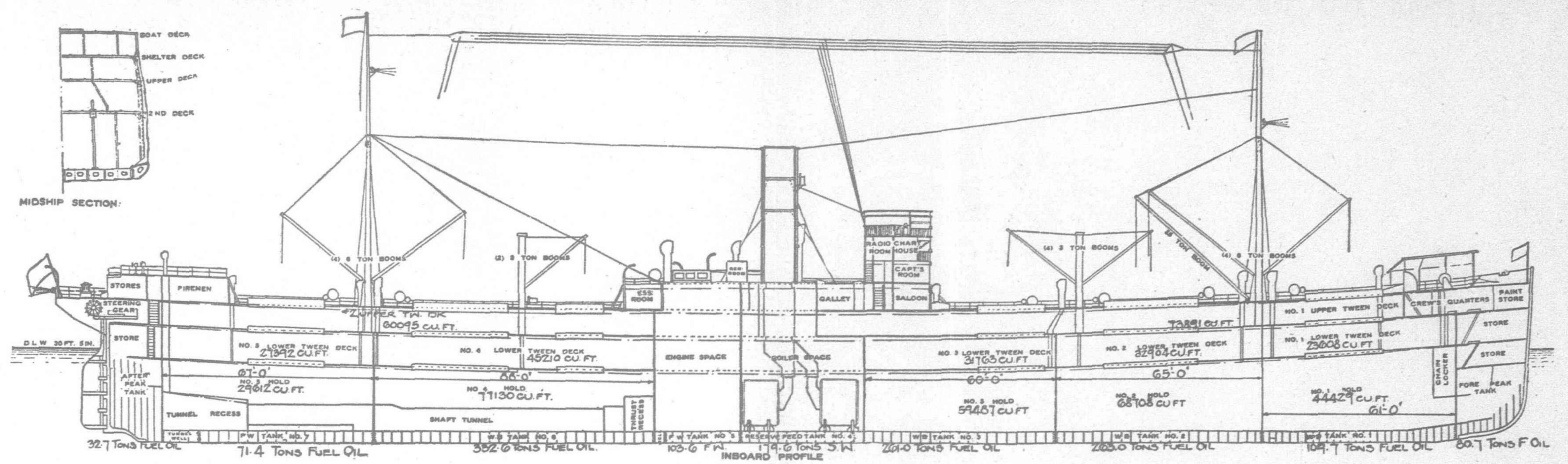
Old North State, Granite State, Panhandle State, Wolverine State,

Length O. A.					522-ft. 6-in.
Length B. P.	***	***		***	
Beam Moulded	***	***	***		62-ft. 0-in.
Depth "A" Deck			***		42-ft. 0-in.
Draft		***	***		31-ft. 9-in.
Deadweight		***	***		12,000
Steaming Radius		***	***		15,000 Miles
Daily Consumpt		***	***		77 Tons
Sea Speed		***	· · · ·	***	14 Knots
Horse Power		***	***	***	7000

#### PASSENGERS

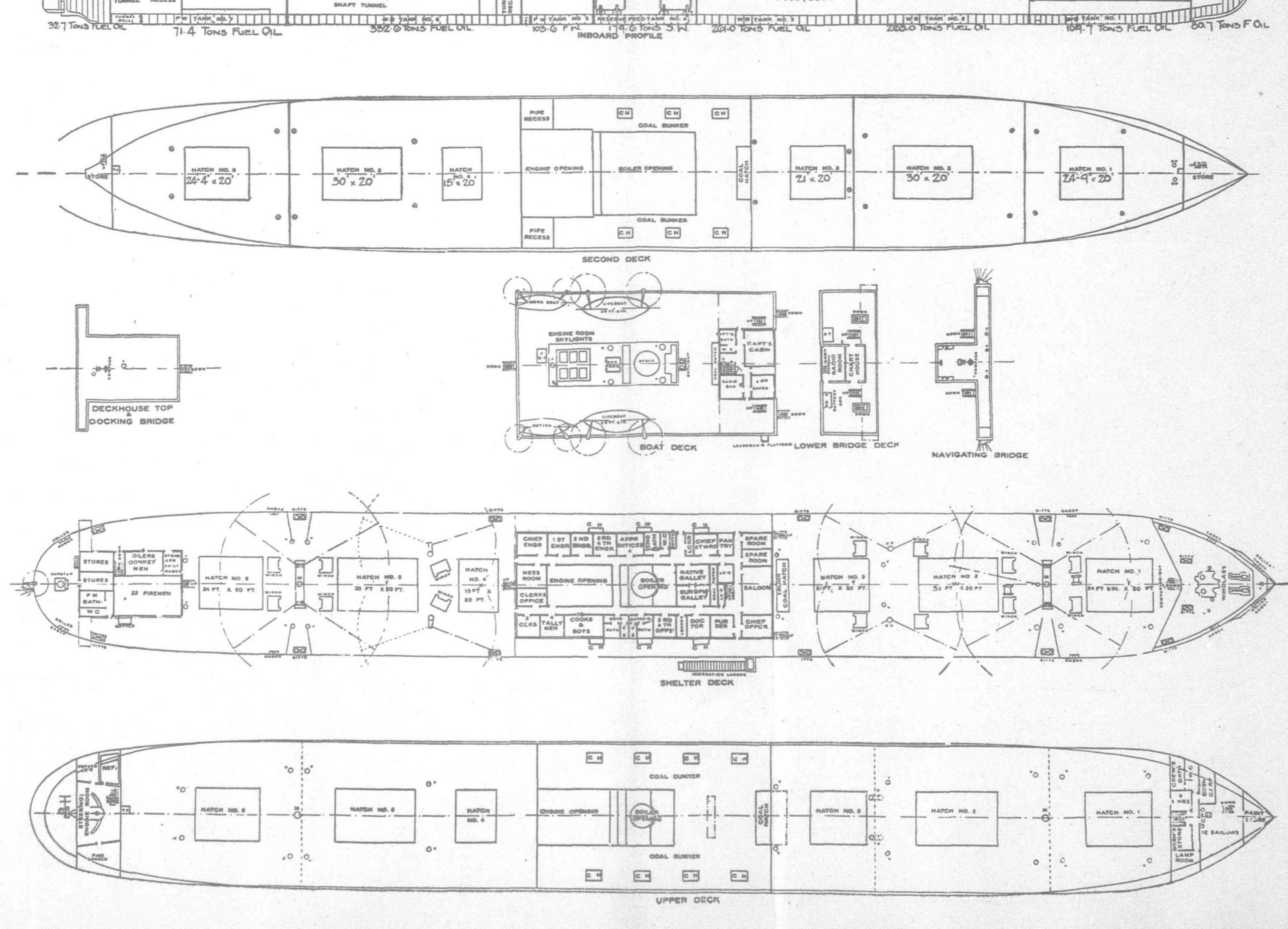
First Class

	rirst C	lass	
Promen	ade Deck		
	10 Rooms-2 Pass	Room-20	Passengers
Bridge	Deck		
	10 Rooms-2 Pass	Room-20	Passengers
"A" D	eck		
	22 Rooms-2 Pass	Room-44	Passengers
Total	42 Rooms	84	Passengers
	CDEW		
	CREW		
Deck D	enartment		22



### New American Cargo Vessels 12,600 Ton Type

Supplementing the 12,600 ton type passenger and cargo steamers described on the preceding pages, the United States Shipping Board is building in Japan two steamers of equal tonnage to be called the "Eastern Trader" and "Eastern Merchant." The attached plan gives full particulars of these steamers.



## Japanese Shipping and Shipbuilding

THE financial break in Japan has forced readjustment and a I squeezing out of excess capital in many lines of trade and industry, with the result that the outlook is much improved. The general impression, however, seems to prevail that it may be difficult to maintain Japanese shipping at anything like its former level of prosperity. The slump has been a veritable tobaggan slide from war boom high levels to almost impossible working conditions. The receipts for all Japanese shipping show a decrease from Yen 900,000,000 in 1918 to Yen 640,000,000 in 1919, with a much greater drop in prospect. for the present year. Before the war the price of ships in Japan averaged \$40 to \$45 per ton, which soared to \$400 to \$450 during the war, with charter rates at \$20 to \$22.50 per ton for European and \$15 for coastwise and Asiatic service. Since the termination of the war the price has dropped to about \$125 per ton and charter rates to \$3 to \$3.50 per ton for foreign and as low as \$1.50 per ton for coastwise service. Notwithstanding the great slump in valuation, many companies are still carrying on their capital account a valuation of \$165 a ton and over and cannot charter for less than \$3.50 without incurring a loss.

The Vice-President of the Csaka Shosen Kaisha in his address to the shareholders on July 27, was most pessimistic as to the immediate outlook. Freight rates were expected to drop still lower with a corresponding decrease in profits. The O.S.K. hoped to meet this situation by reducing expenses, and so maintain the dividend level of 25 per cent. for the next business term. As noted elsewhere in this issue, the cutting of wages is possible only by employing Chinese coolie labor in the stoke-hold and on deck, thus creating a racial or economic problem in Japan, identical in its general phases to that in California. In the general liquidation of the first half year, although hard hit by the financial crisis, only two smaller companies wound up their affairs, while the total capital released amounted to \$825,000.

The Japanese companies are deeply concerned over the operation of the new American Shipping Act, and are taking measures to defend themselves. The situation is still clouded, as until the law becomes effective it is difficult accurately to gage its effect. The Shipping Board has taken the ground that the lower Japanese rates on the American run seriously affect the interests of American shipping, and has instructed its agent in Kobe to open negotiations to have the Japanese rates conform to the American. This is construed as an arbitrary attempt to coerce Japan, giving rise to deep resentment. It is taken for granted that if the government concedes further subsides to the Nippon Yusen Kaisha and other companies on the American run in order to enable them to cut the freight rate, that Japanese vessels will be excluded from American ports, in which event, it will affect at least 30 per cent. of Japan's total tonnage. With American ships heading the list of foreign arrivals and clearances in the port of Kobe, the outlook becomes more and more problematical for Japan, and has a tendency to divert her energies into other

This is seen in the new subsidy bill passed by the Diet which provides for further support to the Toyo Kisen Kaisha, South American west coast service, and a new subsidized regular service of the Osaka Shosen Kaisha to east coast ports of South America, where Japan has built up a profitable trade, and is finding an outlet for her people. This service will call for six steamers of 6,000 tons each and ten sailings each way per year, while the west coast trade will be served by a monthly service with six T.K.K. steamers. The greatest activity however in the new subsidized lines will be in Far Eastern routes. A new line with Singapore as a base will maintain two steamers with twenty sailings a year between this port and Java and Bangkok. Two steamers will be placed on the Shanghai-South China run to maintain 32 voyages per year. A service between the west coast of Korea and Yokohama and other new coastwise lines, will be created.

Notwithstanding the gloomy prospect, the larger Japanese steamship companies are going ahead with their construction programs. The N.Y.K. has placed orders for about 100,000 tons

with the Mitsubishi, Yokohama and British yards. The program of this company contemplates the building of 400,000 tons of new steamers, but owing to the fact that the private dockyards in Japan are fully occupied with new work, the carrying out of the full program will be delayed until next year. The shipyards were hit in the recent slump by the stoppage of orders compelling temporary suspension, curtailment of expenses and failure of some of the very small yards. To offset this, comes the new orders from the Nippon Yusen Kaisha, the Yamashita Kisen Kaisha and other private concerns, and the promise of the government to build some of its warships authorized in the new budget in private yards and place orders for a large number of dredgers required for river and harbor improvements.

The new launchings for the month of July were limited to two vessels, the Pacific Maru of 5,860 tons at the Kawasaki yards and the Meiyo Maru of 5,450 tons from the Asano works.

The general state of the shipbuilding industry is seen in the following resumé of new vessels under construction at the various yards:—

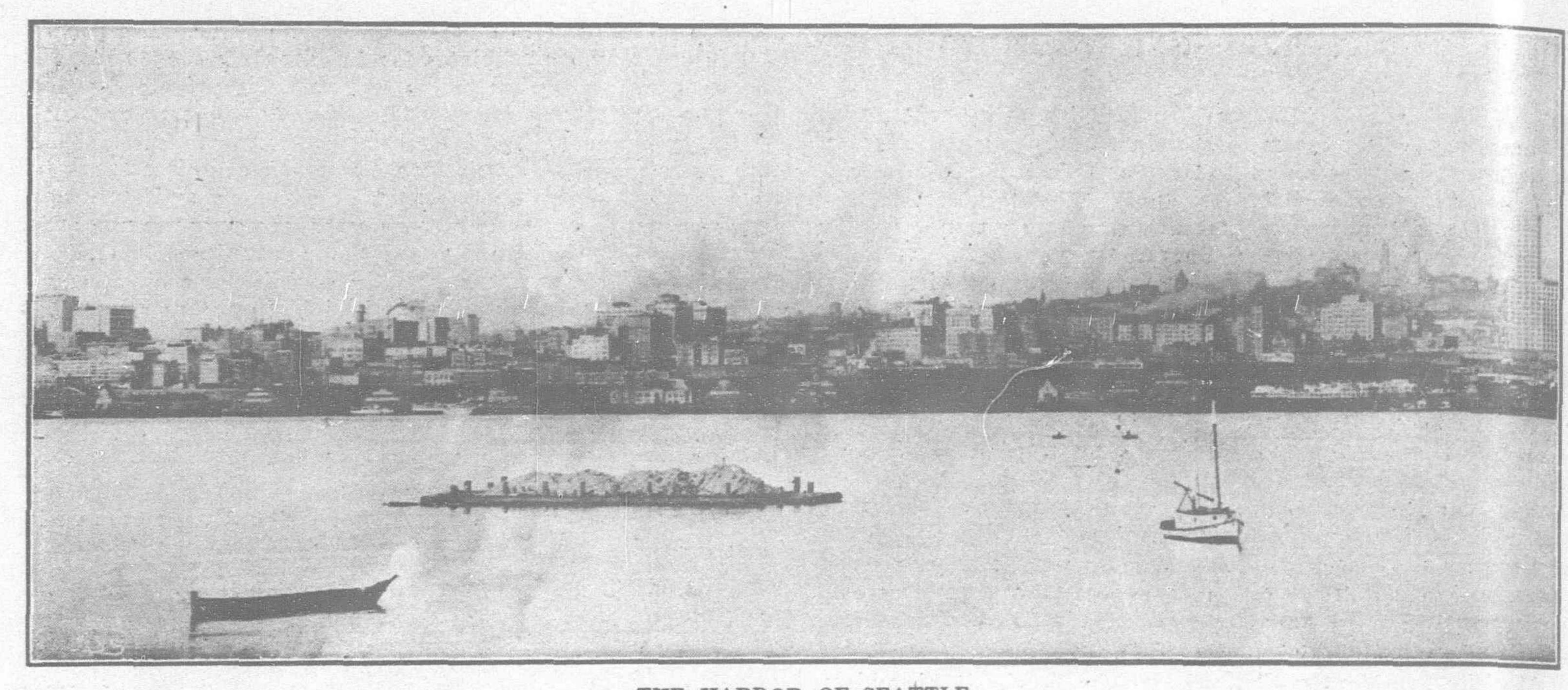
Yard.					Nu	mber.	Tonnage.
Mitsubishi (K	obe)	•••				1	3,800
Mitsubishi (N	lagasa	ki)				1	9,500
Asano				***		5	27,250
Yokohama	•••		•••			1	7,280
Uchida	0 * *	•••			***	2	11,400
Uraga						2	7,130
Toba					•••	1	3,200
Harima		***				3	16,500
Osaka Iron V	Vorks	***				4	. 19,800
Osaka Innosh	ima fa	ctory				3	17,500
Osaka Bingo	factor	у	***			1	3,200
Okamoto		***			***	1	1,300
Fujinagata	***		***		•••	2	5,400
	***					1	1,200
Nitta					***	1	4,500
Ono iron wor	ks and	dock	yards			1	1,400
Harada	***	***			•••	1	2,000
Kawasaki						3	17,580
Mitsui Bussai	a Ship	build	ing de	partm	ent	3	14,100
Matsuo docky						1	3,030

### Chinese Coal For Europe

Substantial shipments of Chinese coal to Italy, Scandinavia and other European countries are now being made. Despite the long haul, Chinese coal operators anticipate a steady, remunerative business with European buyers. The Bellflower and other steamers have taken during August heavy cargos of coal from Pukow, Tsingtau and other loading points.

### Asks Who Got P.40,000,000

A Philippines rice farmer writing about the ups and downs of the rice situation propounds the following:—"I would suggest an editorial asking what about the P.40,000,000, which roughly represents the difference between the crop already bought and the price now obtaining.—P.18-50. Who got that money? The answer is that the dealers and the holders of the grain got it after buying up the rice, cheap. The large landowners have it still on deposit, and the Chinese will sell at the new price, having bought at the old. The forty million pesos came from the poor tao, the small landowner, and the homesteader, the people whom the government professes itself anxious to help. However, that usually is the way in this world; those that have, get; and those that don't have and should get, don't."



THE HARBOR OF SEATTLE

## A Strong Chain of Far Eastern Interest

## Seattle Chain Co. Forging Big Links for Direct Trade with Asia

BRISK, breezy business man got off one of the "Many inquiries and some shipments to the Orient prompted steamers just berthed at Shanghai, hailed a ricksha, this trip," he replied to a direct question. "If you want to made a quick trip into the heart of the business section of the Asiatic Paris, went out with a friend to tiffin. Ten minutes later, most everybody knew that Mr. O. A. Kjos,

vice-president and sales manager of the Seattle Chain Co. and foreign trade representative of the Seattle Chamber of Commerce and Commercial Club, had arrived in town.

Mr. Kjos neither announced his coming nor did he blazon forth his arrival. He was listening, not talking, attending strictly to business, getting facts. That made Shanghai more interested in the man and his visit and the great American Pacific port from whence he came. He admitted that Seattle is a real man's metropolis, a city with vision and a fine Far Eastern outlook. And he consented to talk chain to a representative of THE FAR EASTERN REVIEW.

"A link or a car-load, that's the way we build chain in Seattle," said Mr. Kjos. "We are right opposite you on the other side of the water, with our minds bent and our plants equipped to handle Far Eastern business."

The Scattle chain man is making the rounds of the shipbuilding centres of Eastern Asia. He has been moving about from port to port since he crossed the Pacific. Looking after his own chain business, he has also given time and attention to general aspects

of Seattle-Asiatic interest. He was quite pleased when he heard some complimentary remarks about Seattle's large and sensible way of looking at things and enterprise in putting "Seattle is a fine illustration of the American community a good foot forward.

do business,, you must go after it, carry your own message, meet your customers face to face.

"In the matter of shipments, Seattle is many days nearer

to the Orient than any other American port and when it comes to chain we are nearer by many weeks. New York and Liverpool ship more chain, perhaps, than any other port. Well, you can open your office window and call over to us and we are at your service.

"We make anything from a cow tie chain to a ship's cable with links anyone of which is a strong man's load.

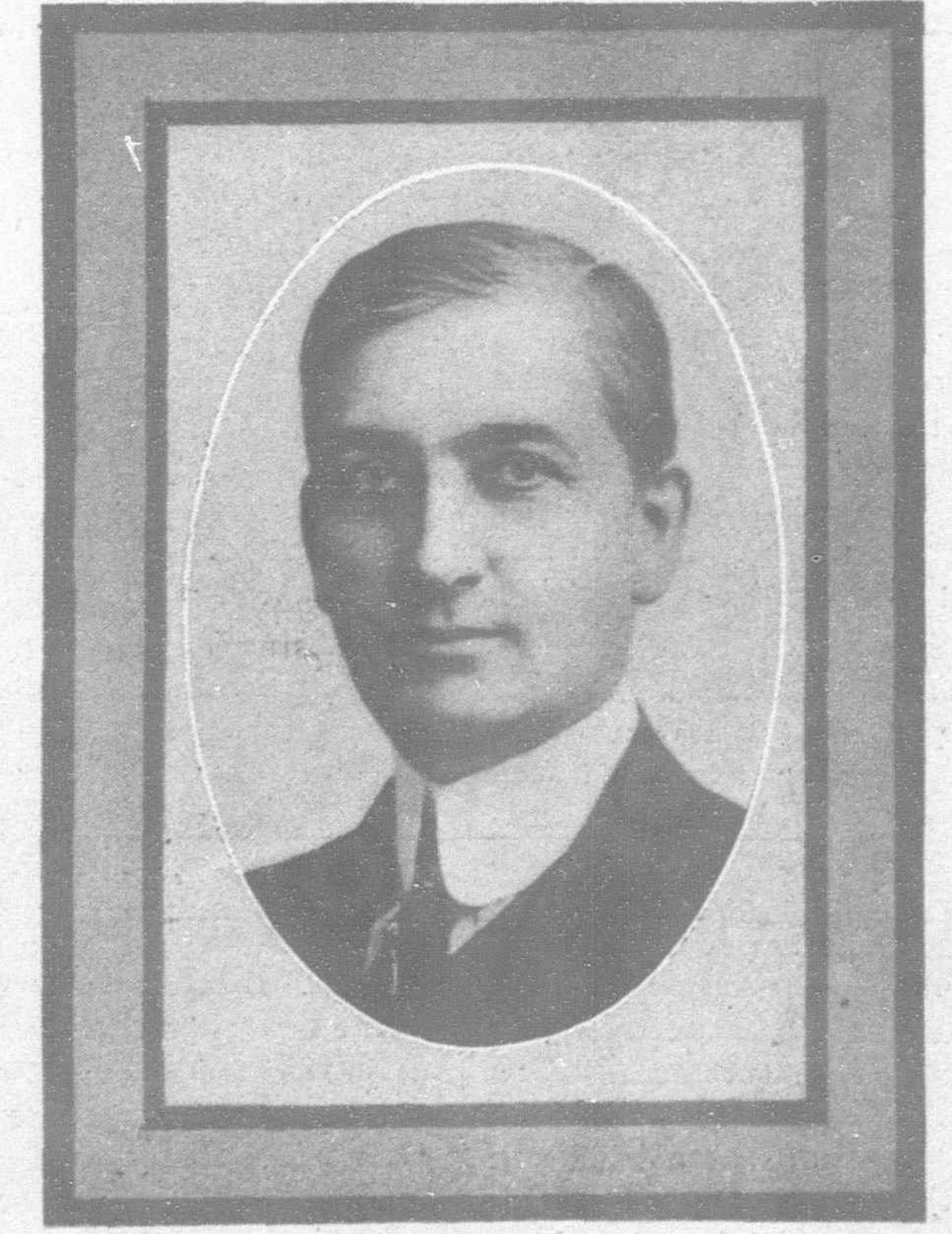
"Quality and service are the two principal things we urge and we expect to secure our business here along the same lines as we have followed on the Pacific coast. Our friends and customers now extend from the Mexican line to the British Columbian and Alaskan territory.

"Seattle enjoys a most advantage ous location for Oriental shipments, imports or exports. Its healthy climate aids its plants to produce more in the same length of time than is possible in regions where extreme hot weather in the summer and very cold weather in the winter retard production."

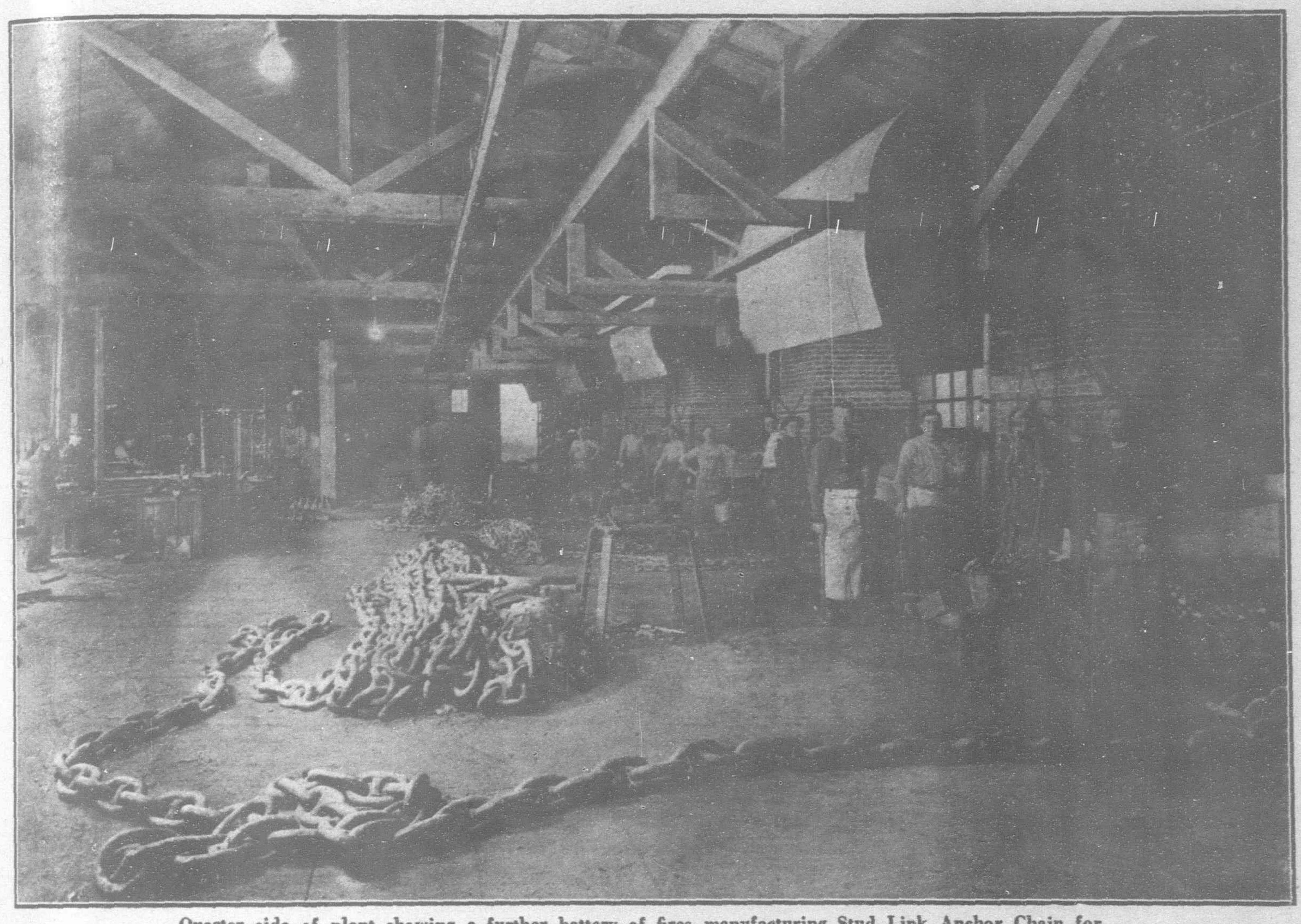
The Seattle Chain Co. is the only chain works west of Pittsburg. From a tiny shop no bigger than a fair-sized barn, in 1913, it has grown into one of the great industries of the world, with a huge plant and its own railway and

terminal facilities. "The location has had a lot to do with this expansion," said Mr. Kjos.

spirit of enterprise—one for all and all for one object. The



O. A. KJOS, Seattle Trade Envoy



Quarter side of plant showing a further battery of fires manufacturing Stud Link Anchor Chain for Far Eastern and other Pacific Trade Carriers

port of Seattle now owns and operates the two largest ocean terminals of pier type to be found in any American or foreign port."

#### The Smith Cove Terminals

The giant Smith Cove terminals of the port of Seattle are described by Mr. Kjos as "an example of efficiency, economy and

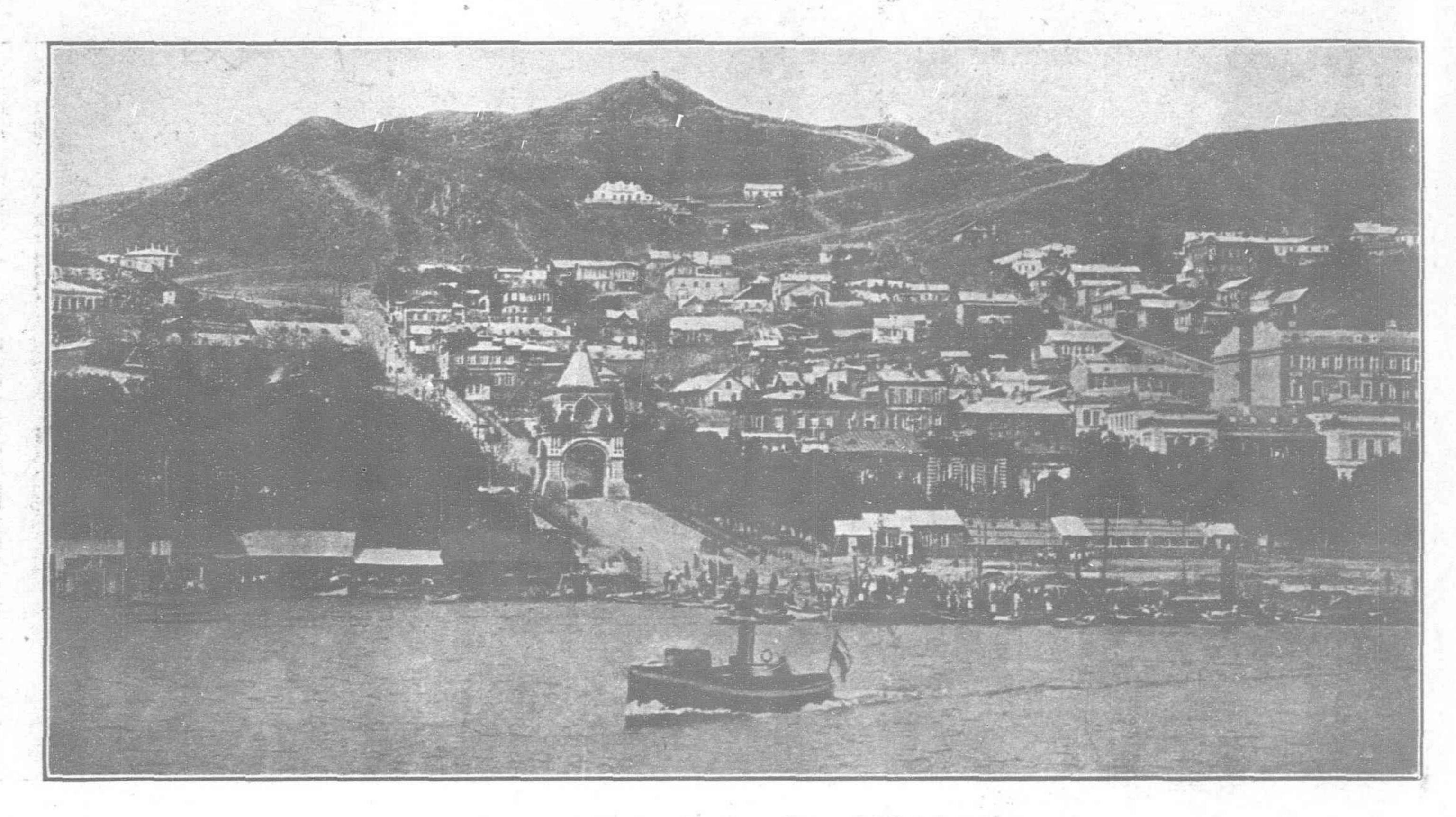
dispatch that means much to the rail and water carriers carrying the export and import cargoes. A million tons of freight were handled over Smith's Cove Pier "A" in 1919 with a dispatch and economy that would have been impossible over any existing pier on the Atlantic seaboard. In fact, this pier has taken care of six ocean freighters at one time without exhibiting any noticeable congestion or causing delay by reason of congestion to either rail or water carrier."



Battery of Big Chain Fires, Seattle Chain Co.

## Great Car Assembling Plant at Vladivostok

By Paris Hiatt



The Naval Harbor Landing, Port of Vladivostok

N September of 1915, I left Petrograd for Vladivostok to supervise the erection of the power house of an assembling plant for building American railway cars. This plant was to be built at First river, about three miles from the port of Vladivostok, and would have a maximum capacity of 160 cars per day."

arrived in Vladivostok on the sixth day of October

was a swamp about three miles long by about half a mile wide, here consisted mainly of ten and twenty-ton Brown hoists, and between two hills.

Things had quieter down on the battle front and as we were 6,000 miles away, the atmosphere of war was almost entirely absent.

The Russians were to build this plant under my supervision and erect the cars under the supervision of representatives of the American firms who sold them. The first thing was to fill in this swamp, build railways, pipe lines, lay foundations, and commence building.

All of the assembling, lighting and power machinery was supplied

THIS article is an extract from the narrative of Mr. Hiatt published in the Compressed Air Magazine. It gives a good general description of one of the largest engineering projects of the War.

departments, each under a Russian engineer and all under a general manager, also a Russian. The duties of the first department were to unload the material,

by A. R. San Galli of Petrograd

for whom I worked and to whom

I was responsible for the installa-

tion and successful operation of the

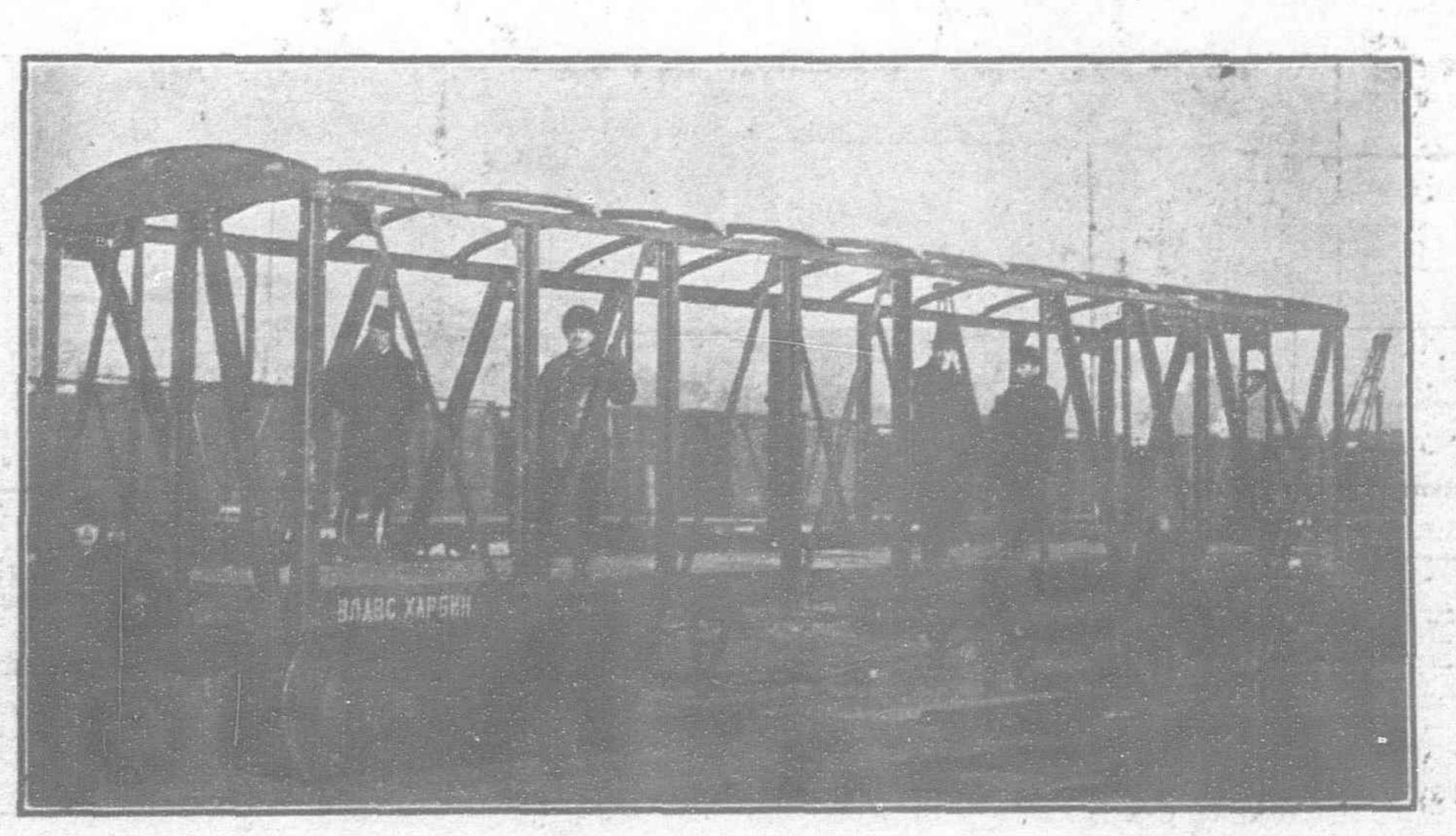
plant until 13,000 cars, the first

The plant was divided into five

order, were completed.

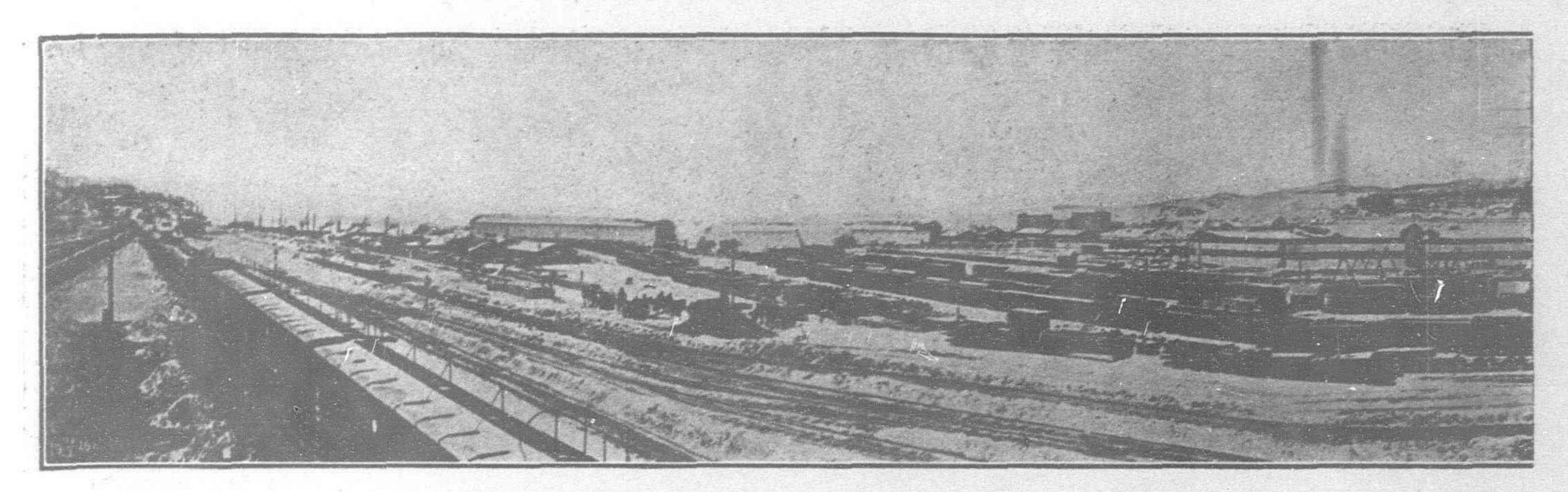
assemble the wheel trucks, place the platforms on the trucks and

looked over the ground where the plant was to be built. This deliver them to the second department. The machinery used work was done entirely in the open.



Complete Framework of the First Box Car Assembled

The duties of the second department were to erect the steel work on the cars and put the air brakes and piping In place. This department consisted of five steel shops where the riveting was done and an openair testing department for the air brakes. These steel shops used several hundred Little David riveters, chippers, holders-on, drills, and hoists, as well as a great quantity of coke and oil rivet forges. Reheaters were also used for reheating the air in each shop.



A Panoramic View of the Railway Car Assembling Plant at Vladivostok

The duties of the third department were to place the woodwork on the ears, put on the tin roofs and do the painting. Little David drills were used for wood-boring and tightening nuts Pneumatic paint sprays were used for the wheel trucks and under frames. The car bodies were painted by hand. The woodworking shop contained the usual wood-working tools and rolls fer bending sheet iron.

The duties of the fourth department were to furnish compressed air, light and power and do repairing. It consisted of a power house, a machine shop and a blacksmith shop. The power house contained six locomotive boilers; four 500 H.P. Ingersoll-Rand compound, condensing steam driven air compressors; two 180 H.P. Erie City steam engines direct connected to General Electric direct current generators, and one 85 H.P. American Ball Engine direct connected to a General Electric direct current generator. The engines were each supplied with Wheeler low level jet condensers and the water for the compressors and boilers was supplied by Cameron steam pumps.

The blacksmith shop consisted of a number of forges and a 1,000-lb. air hammer.

The machine shop was equipped with a number of lathes, drills, and hydraulic wheel presses.

There were 1,000 arc lights and several thousand ordinary lamps in the lighting system.

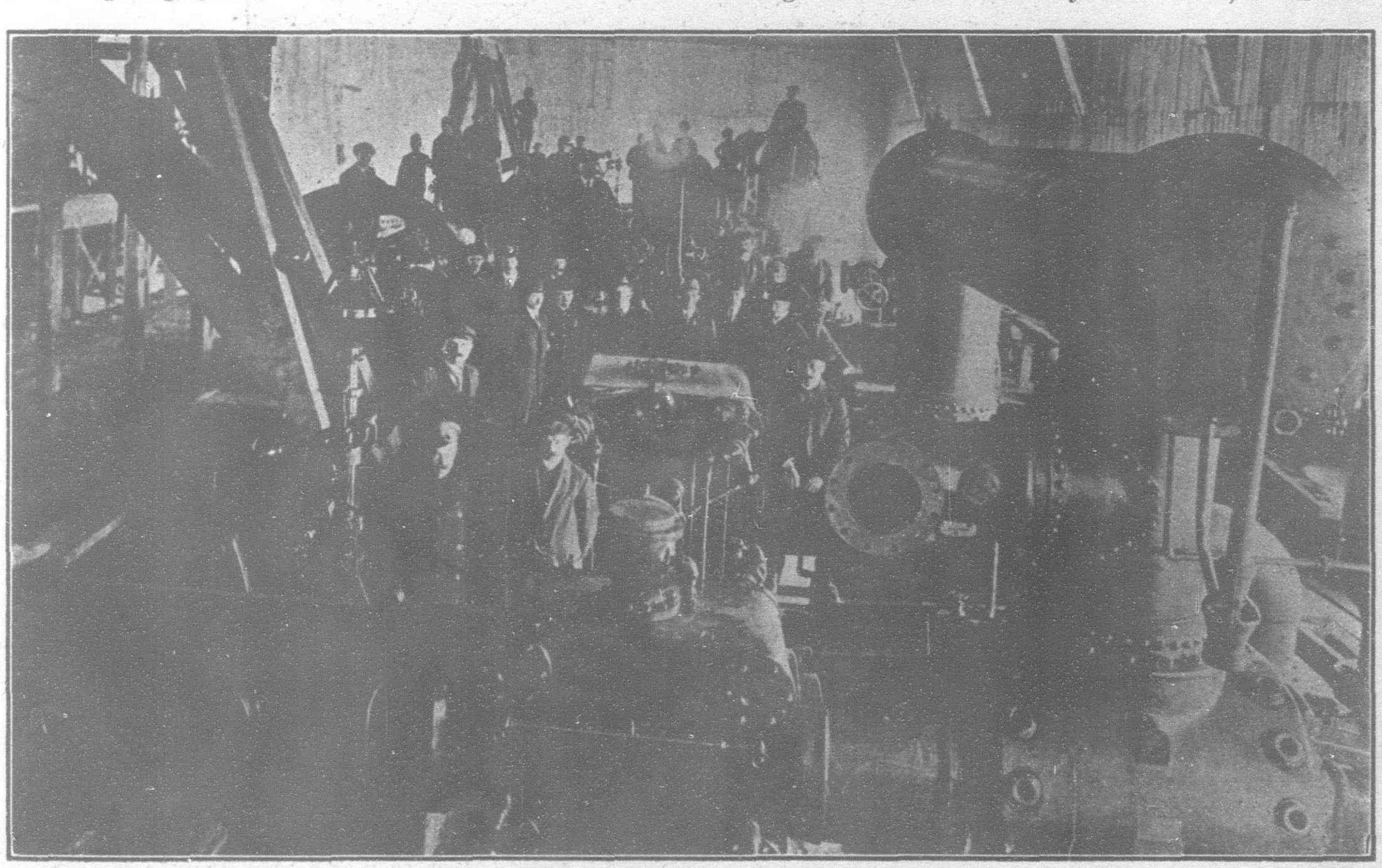
The fifth department handled administration, housing, employment and testing and accepting the finished cars.

There was also another department for unloading boats and bringing material the three miles from the water front to the erecting plants.

The cars consisted of 4,000 gondolas and 9,000 box cars furnished by the Pressed Steel Car Co. of Pittsburgh, the American Car and Foundry Co. of Berwick, Pa., and the Eastern Car Co. of Canada. Representatives of these companies were on the job constantly.

We commenced work on the 7th day of October and had the first compressor in operation by January 4th. The other units were put into service in rapid succession. I was ably assisted in my work by two Americans, William T. Piper, and William N. Scott. Engineers will understand what a difficult undertaking the erection was when they consider that the engines were assembled and placed on foundations without the use of a single crane, the only rigging material we had on hand being a small pulley block, hand winch, and four locomotive jacks.

During the time we were erecting the engines the buildings were being built around us. It took six weeks to a day from the time the foundations were started until the four air compressors were completely erected and grouted in. To give some understanding of the foundations required for these heavy machines I wish to explain that we built one solid floor four feet thick of rough concrete, reinforced by barbed wire, which extended the



Compressors Being Installed at Vladivostok Railway Car Assembling Plant. The Main Power House is 850 feet Long



Production at this Plant Finally Amounted to a Maximum of 164 Cars par Day

entire length of the power house. On top of this floor were erected the foundations for the engines.

Now came the job of laying about six miles of compressed air lines, ranging in size from 1½ to 10-in. in diameter, putting in steam piping, condensers, and the thousand and one other things necessary to get the plant started. Our piping had arrived, with the exception of the larger fittings, valves, flanges, and pipe tools, the ship carrying them having been lost at sea.

However, we could not hang up the work for want of this material as there were half a million tons of munitions which were badly needed at the front lying on the docks at Vladivostok and cars must be had at any cost. We made over 50 square and irregular bends. in pipe of 6 to 10-in. We hadn't diameter. any pipe threading tools so we fixed a foot-treadle on a lathe and let Chinese furnish the power for operating it. We also made chain tongs for pipe work and heated the ends of the large pipc and turned up Van-Stone flanges which we finished off with files. The flanges were made from steel rails; tees were also made from pipe by cutting a hole and riveting on the tee piece. We connected up the whole lot of engines without any

valves, except the throttles on the engines and boilers. Short pieces of pipe were placed in the lines and these were removed without disturbing the pipe as fast as the valves were received. Some of these valves, however, did not arrive until the shop was completed.

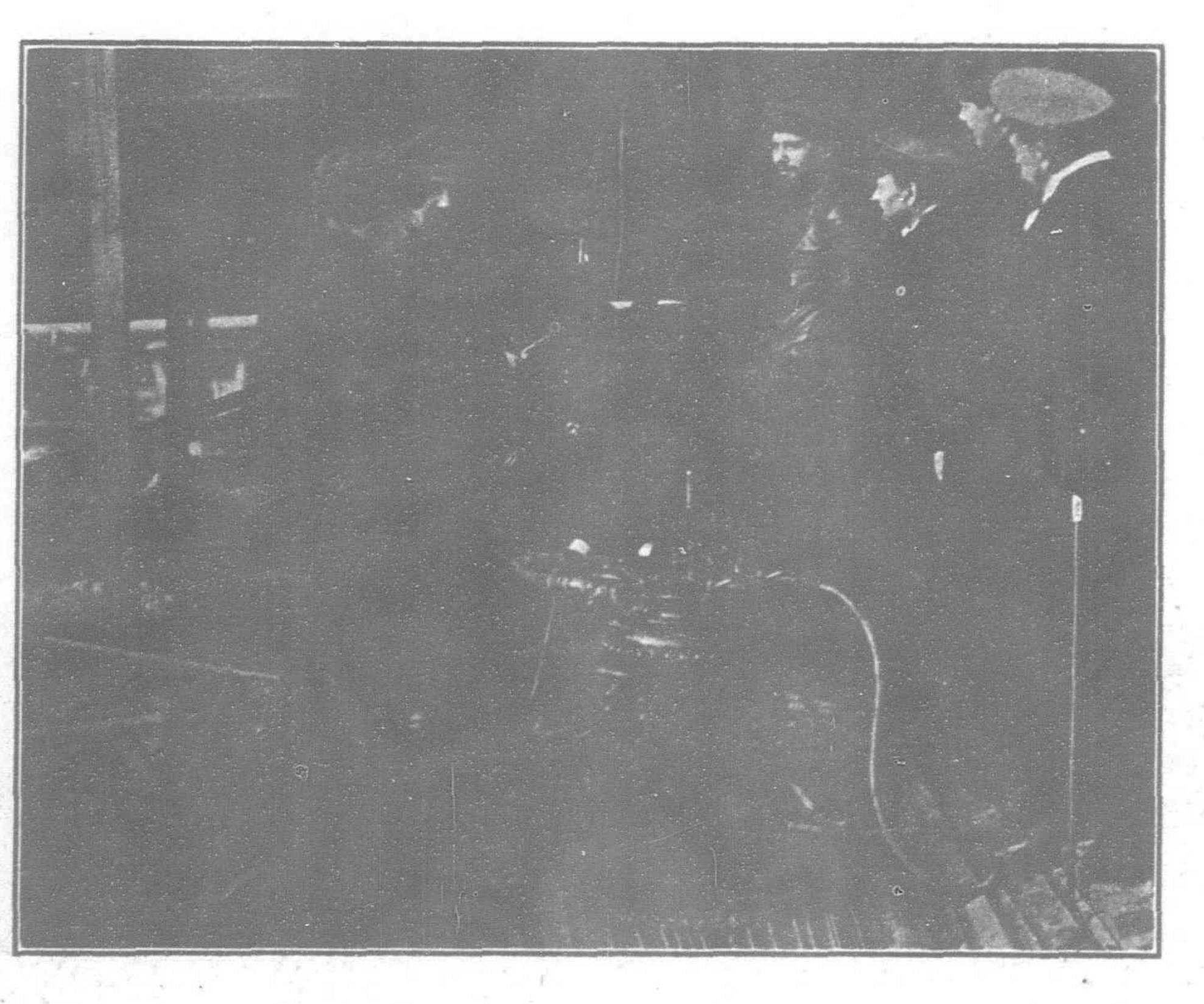
In short, we accepted no excuse whatever for want of material and forced the thing through to completion, notwithstanding that it was necessary for us to make several new steam valves and one new crosshead on the job.

The day after the first car was erected we took a holiday to attend the Russian ceremonies which included religious service and a banquet afterward. Although prohibition was in force, we had plenty of champagne and then some flowery speeches. It is well to note that prohibition in Russia was every bit as effective, if not more so, as war-time prohibition in the States.

Froduction gradually grew from a few cars a day in January to 164 a day in June, when it fell off again on account of shortage of car parts.

The first 13,000 cars were completed by September when we had another banquet and a religious service. Soon after I turned the plant over to the Russian Government.

This account would not be complete if I did not say a few words or behalf of the Russian workmen and mechanics. On this job and on all the other jobs with which I was connected in Russia, I found them very capable workmen. True, they are slow to understand a thing, due to their complete lack



Paint Sprayer Painting Cars

they understood what they were to do, they did it well. The carpen ters and mechanics especially were clever workmen, and if they had confidence in the man who gave them directions they could do almost anything that one could wish. However, the Russian engineer was altogether too theoretical. He believed in always looking for a precedent and considered it a disgrace to pick up a wrench dirty his hands in any way. I found this everywhere in true Russia and especially on this Vladivostok job. They were amazed at the way Americans forced things through and we had heated arguments and differences with them this account. How. ever, they were clever in

of education, but once

many respects and when a thing was finished and working they were quick to see the good points. All theory and no practice is one reason why Russian engineers have never made the headway that other engineers have.

Another point wherein they are weak is in administration, and this applies not only to the engineers, but to every other class of Russian executives. Just as sure as several Russians try to administer any proposition jointly, differences arise and there are lengthy discussions and untold trouble. They must have a single administrator to lay down the law. This was forcibly brought to my attention by the fact that on this job the first and second departments could not get along on account of the close association of their work. It finally became so bad that the heads of these two departments communicated with each other through the general manager.

While here I placed an Ingersoll-Rand submarine drilling outfit in the Golden Horn Harbor for excavating a shelf in the sloping rocky bottom so that a concrete pier could be laid down.

modern steam-engine practice.

# Progress and Problems in the Field of City Water-Supply

The "Unaflow" Pumping Engine

By D. A. Decrow, Manager, Water Works Department, Worthington Pump and Machinery Corporation
115 Broadway, New York

the fact that the steam travels into and through the steam cylinder in one direction; it does not counterflow or return over its own path. It is not particularly new in principle, but its development as a practical and economical commercial machine is quite recent, and its adaptation to reciprocating pumping engine practice is new. After much experimental work by various inventors Prof. J. Stumpf overcame previous difficulties, and to him undoubtedly falls the honor of making the first practical and commercially successful application of its principles to

The general principle of the "Unaflow" reciprocating steam engine is that of utilizing the heat energy of the steam in the cylinder during the period of its admission, expansion and flow in one direction, the expanded steam being released or exhausted through ports or openings uncovered by the travel of the cylinder piston at that period of its stroke most remote from the point of admission.

In the accompanying sketch of a typical "Unaflow" engine the piston is at one end of the stroke with the exhaust ports uncovered. The arrow indicates the path of the steam through the cylinder. The indicator diagram shows that steam is admitted into the cylinder for only a very minor portion of the stroke and is then cut off, the work performed during the remainder of the stroke being due to the expansion of the steam after the inlet valve closes. The exhaust opens when the piston, which is much longer than the ordinary steam-engine piston, travels past and uncovers the exhaust ports midway between the two ends of the cylinder.

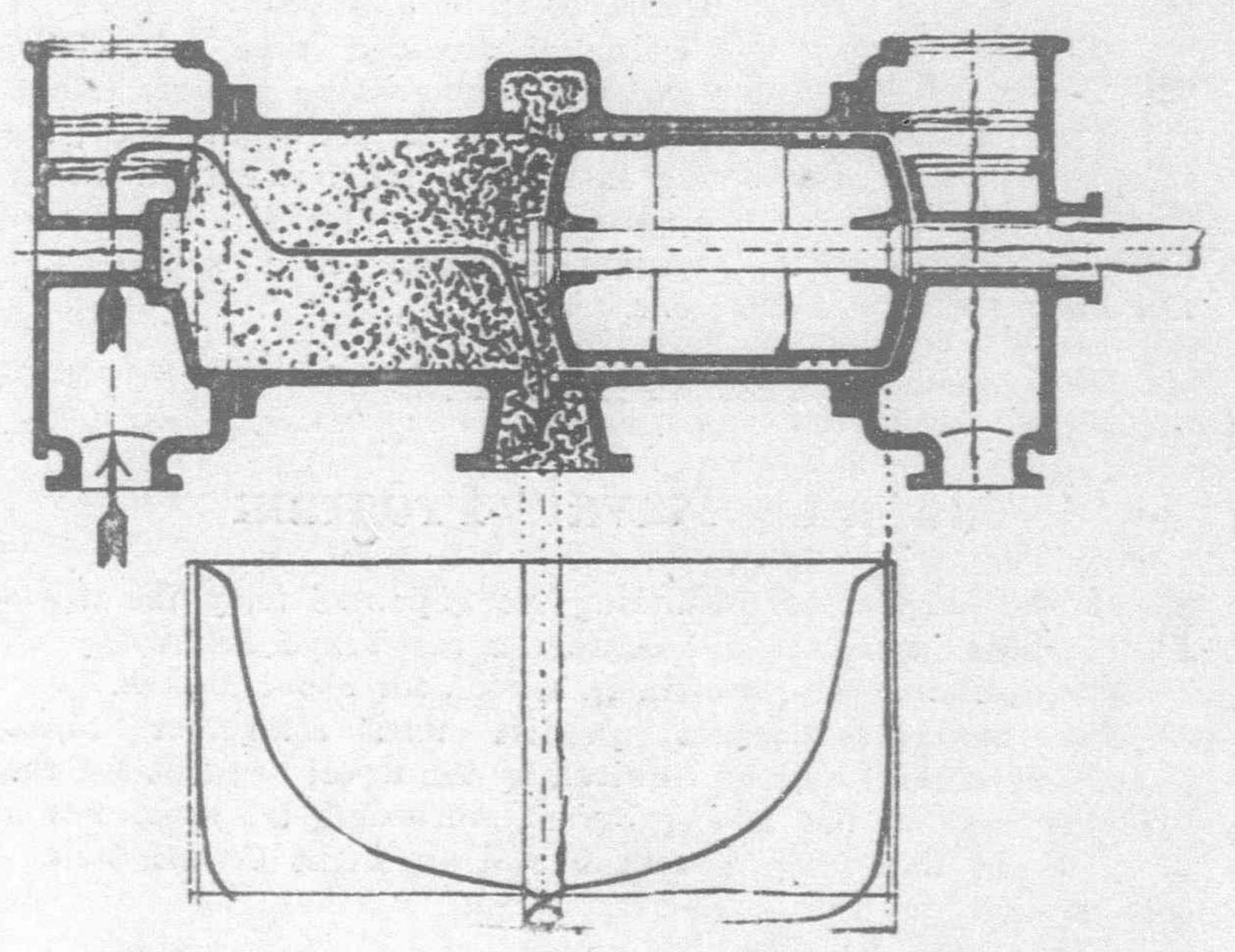
Beginning with the steam in the cylinder, there is practically no change of temperature until the point of cut-off. After cut-off, expansion takes place with a consequent drop in temperature and at this time condensation begins, due to the changing of heat into work. As the cylinder head is jacketed with high steam, no condensation takes place on the walls of the head, but the condensation is on the wall of the piston, which is comparatively cool and adjacent thereto, so that at the end of the stroke, when the piston uncovers the exhaust ports, the moisture of condensation is mostly at the exhaust end of the cylinder, and as the steam expanding away from the cylinder head rushes out through the exhaust port, it carries the moisture with it.

At this time there is a sudden drop of temperature in the cylinder due to the sudden drop of pressure, but as the inlet end of the cylinder is dry it does not lose its temperature. The exhaust port is covered by the piston on the return stroke, trapping in the cylinder comparatively dry steam partially superheated. As the walls of the cylinders have retained their heat, the heat of compression is not absorbed either by moisture or by cold walls, as in the case of a counterflow engine, and the steam remaining in the clearance is heated by compression to a temperature above the temperature of the initial steam. When the valve is opened to start the next stroke, the live steam rushing in goes into a clearance space in which the steam entrapped is notter than the entering steam, hence there is no initial conden-Sation. Owing to the complete removal of all the mixture of each stroke, the well-known heat losses that are caused by the Presence of water in the counterflow engines are avoided.

Eliminating initial condensation permits an economically high ratio of expansion in one cylinder. For normal working conditions about 16 expansions have been found to give best results.

It is also evident that, with the use of exhaust ports in the cylinder instead of the usual exhaust valves, leakage losses at the exhaust valves and of all of the added clearance space and surfaces, which losses necessarily follow from the use of a special exhaust valve, are eliminated. It has been found practical to reduce the clearance space in condensing engines to 3 per cent. of the swept volume of the piston.

Some of our manufacturers of "Unaflow" steam power engines have gnaranteed as low as 10 lb. of steam per indicated horsepower per hour, and some of the tests of European built engines have shown well under nine pounds.

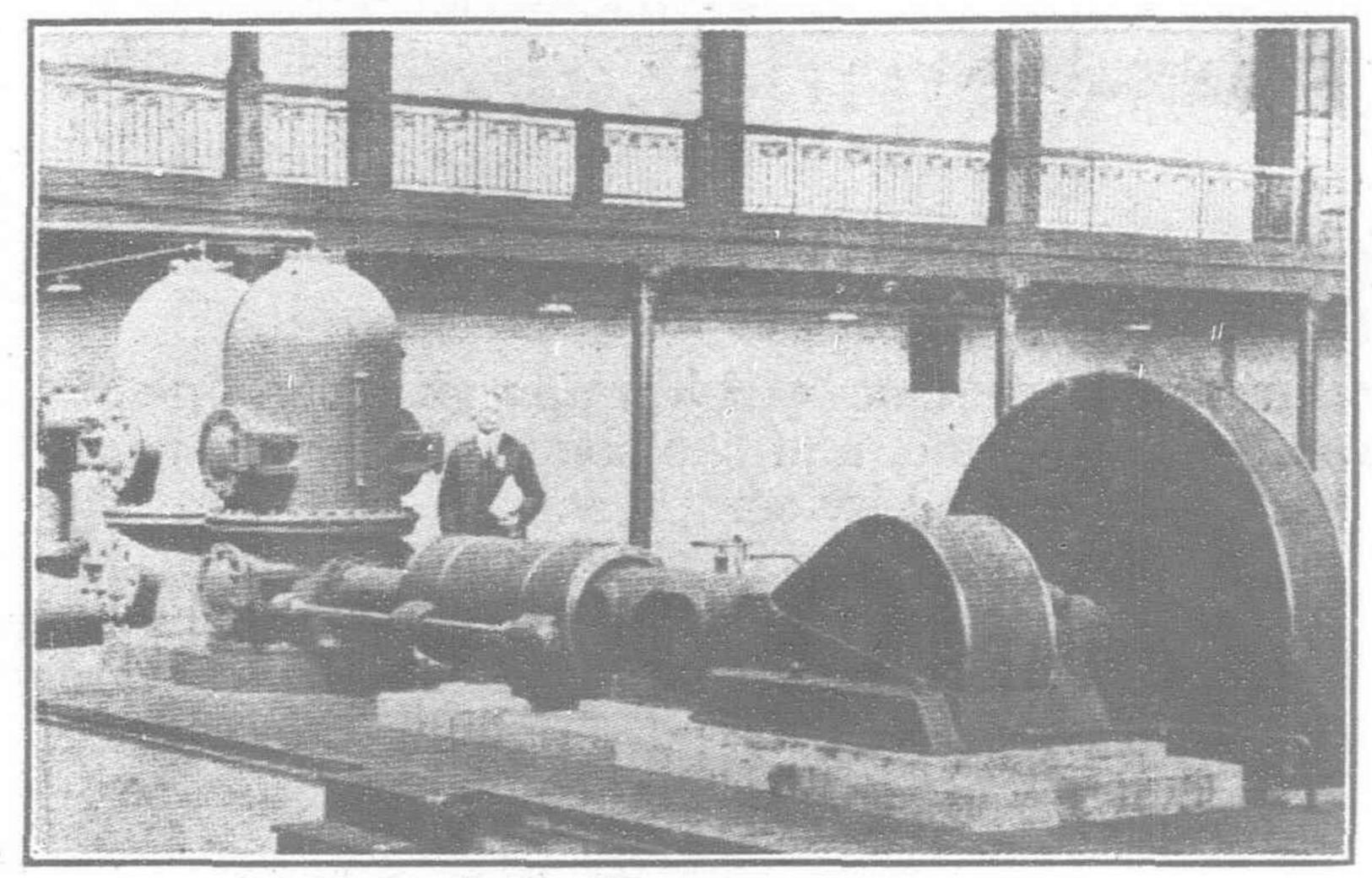


Typical "Unaflow" Steam Cylinder and Indicator Card

Taking into consideration its simplicity—for with a single cylinder substantially the same economy is obtained as with the best types of compound- or triple-expansion steam engines—the "Unaflow" engine marks a distinct step in advance of the other types of reciprocating engines. These advantageous features have attracted attention to its desirability as a motive power, for reciprocating pumping engines.

To develop a pump that could be combined with and utilize the advantageous features of the "Unaflow" engine requires that due consideration be given to proper channels for passing the desired amount of water to and through the pump with the least practicable amount of deflection and disturbance of the flow. This can best be attained by incorporating the "Unaflow" principle in so far as it will apply to a pump. The pump should be provided with passages ample and direct, so there will be no reversal of flow, with plungers properly proportioned and formed to cause a minimum disturbance, with suitable suction and discharge air chambers properly located with pump valves that will

deflect the direction of flow as little as possible, that will operate quickly and quietly at all pressures and economic speeds of the engine, and, furthermore, that will be durable and lasting in operation.



"Unaflow" Test Pumping Engine at Work

One of our pumping engine manufacturers has designed, constructed, erected and will operate in the Porter Avenue waterworks pumping station of the City of Buffalo, especially for the inspection and information of the members of this convention, a complete "Unaflow" high-duty condensing pumping engine of about 3,000,000-gal. daily capacity. Tests of this machine will be made later and the results published. It is anticipated that the tests will show a duty of 180,000,000 ft.-lb. of steam.

This engine is of the horizontal extended type (so-called), having one steam cylinder and one double-acting plunger pump. Its normal working water pressure is 100 lb. per square inch; the suction left is approximately 15 ft. plus the friction in about 60 ft. of suction pipe. The normal steam pressure at the Porter Avenue station is 235 lb. per square inch with 100° F. superheat.— The Engineering News—Record.

## Japan's Naval Program

OR the purpose of expanding the Japanese navy the chiefs of naval arsenals will confer at the Tokyo Admiralty on September 21 and remain in session for about a week.

The naval authorities predict that altogether 15,000 additional workers will be required by the naval arsenals for the carrying out of the new program, including the construction of an Eight Battleship Squadron and an Eight Cruiser-Battleship Squadron. The Yokosuka Naval Station has already approached the Kyochokai (Capital and Labor Co-operative Association) in Tokio with a request for 2,000 men. The Kure Naval Station is now in urgent need of 5,000 men, and other stations are also advertising for workers, at wages ranging from Y.1.50 to Y.4.80. The authorities are experiencing great difficulty in housing the workers.

According to the *Chuwo*, an organ of the Seiyukai, the new program will be completed by 1929, during which period the naval authorities will construct four battleships and four cruiser-battleships each of a tonnage of over 30,000, 12 light-cruisers each of 5,500 tons; 37 destroyers of over 800 tons each; 12 special service-boats, and a number of gunboats, submarines, and other craft.

At Kure the work on the battleship Nagato (33,800 tons) is now in progress, and the keel will shortly be laid for the battleship Akagi, of 39,000 tons. At Yokosuka, Sasebo, and Maizuru the work of enlarging the docks is going on apace, and orders will shortly be placed with the Kawasaki, Mitsui and other private shipbuilding yards.

The new air program for the Japanese navy in the present estimates provides for the increase of the two aeroplane divisions

to seventeen, to be established at the Kure, Saseho, Yokosuko and Maidzuru naval bases. A large naval aviation station will be established on the Kasumigaura Lake near Choshi. An order has been placed with the Asano Shipbuilding Yard for construction of a large aeroplane tender to be built after the most approved pattern of similar vessels in the British navy.

Japan's Copper Output.—Since 1917 the output of copper in Japan has shown a gradual decrease, due to decline in a shipments to Europe. The Japanese Copper Refining Companies' Union is now restricting the output by from 30 to 40 per cent., while many small mines have already been closed. In January the output was 9,570,280 kin, in February 9,441,554 kin, in March 9,910,859 kin, in April 9,783,279 kin, and in May 9,080,386 kin. The above output, compared with the corresponding period of last year, shows a decrease of from 4.1 to 10.5 per cent. The output during 1917 amounted to 151,464,541 kin, and since then the figures have declined to 134,782,766 kin in 1918 and to 126,605,455 kin in 1919. The following table shows the principal copper mines whose output amounted to over 1,000,000 kin each during last year:—

					Kin.
Hidachi, in Ibaraki-ken					20,612,249
Ashio, in Tochigi-ken				***	22,637,900
Kozaks, in Akita-ken	*** (	***			15,050,568
Sagakan, in Oita-ken				* * *	13,782,329
Besshi, in Ehime-ken	* * *		* * *		20,686,372
Ikuno, in Hyogo-ken			* * *		4,320,218
					4,230,615
		*.*.*	* * *	***	2,748,498
			***	***	3,350,188
		5 4	1.6.6		2,141,119
Kunitomi, in Shiribeshi-ke	n		***		1,769,306
					1,880,699
					1,026,444
Yoshioka, in Okayama-ken					2,736,164
Shinbo, in Miyagi-ken		· · · ·	* * *	***	1,155,255

Japan's Road Builder.—Mr. Shinichi Sagami, the chief of the road-building section of the Japanese government, has left Tokyo for a trip to Europe and America to investigate roads and road-building in various countries.

KOREAN INDUSTRIES INCREASE.—Productive factories in Seoul at the end of June numbered 548, comprising 16,000 operatives, with capital aggregating Y.19,000,000 and with output amounting to Y.40,000,000.

As compared with the figures recorded for the corresponding period of the preceding year, the above indicates an increase of 89 in the number of the factories, Y.9,000,000 in the amount of capital, 2,000 employees, and Y.9,600,000 in the amount of output.

Recognizing that rubber can be made into many useful articles, a factory for manufacturing rubber goods has recently been successfully organized in Canton. Raw material is being obtained from Kinngchow and Ngaichow, in the island of Hainan, where rubber trees are growing successfully.

Steel that may be driven through a piece of wrought-iron over an inch thick—that is hard enough to cut glass like a diamond, and yet so flexible that it may be bent without breaking—is described in the Scientific American. This steel, the manufacturer states, has a wide temperature range, as it may be heated anywhere between 1,650 and 1,950 degrees Fahrenheit, and yet give good results. The steel seems to have its greatest value when heated to 1,750 to 1,800 degrees, quenched in oil and slightly drawn. The drawing, it is stated, does not seem to affect the hardness of the steel, but it helps the toughness.

## Radio Compass—or Direction Finder Systems

By R. E. Thompson, Manager, Wireless Improvement Co.

THE rapid coming into use of the modern and simplified radio compass or direction finder should make a few words on this subject of interest to those having to do with navigation or other subjects wherein the direction or latitudinal and longitudinal location of any particular object or place is involved.

For instance, a ship at sea may often wish to know (a) the direction of another ship or fixed station; (b) the exact position of another ship or fixed station; (c) its own direction from another ship or fixed station; (d) its own latitudinal and longitudinal position. The same holds true as regards land stations and

aircraft. The ability of aircraft of all kinds to secure their positions in the air or their direction from another aircraft or land station is of paramount importance.

The army, the navy and the Post Office department of the U.S. government are paying particular attention to the installation of radio compasses or direction finders—as the system of apparatus for obtaining directions and locations by means of signals between DECK OR TOP REINFORCING MOUNTING FRAME RING With radio stations is called. POINTER such apparatus, the direction of any station sending signals-INDICATING DIAL regardless of their purpose or character, may be determined. In order that the proper signals may always be available to be sent from two different directions at the request of any ship station. other, such as a transstations (1.e., Beacon special for stations mitting TWO STAGE AMPLIFIER HAND WHEE COMPLETE WIRING DIAGRAM OF RADIO COMPASS-MODEL"A"

workings with compass stations) have been installed on the coasts of the United States and other countries at locations best suited to ships or aircraft to determine their own positions through the means of signals sent from these beacon stations. The army and the Post Office department have, also installed additional inland stations which may be used by aircraft to determine their own position or to handle such messages as they may wish.

40 VOLT PLATE

WIRELESS IMPROVEMENT COMPANY

NEW YORK, U.S.A.

The battle of the radio engineers of the allies against the radio engineers of the Central Powers—the one in locating the

submarines which infested European and American waters bent upon destruction—and the other in devising ways and means of communicating with each other and their base, without being located by the radio direction finders in the hands of the allied radio engineers—will read like a romance from the Arabian Nights, or Jules Verne at his best, when the full story is written.

The operation of the apparatus is very simple and any radio operator or person capable of recognizing radio signals received from a particular station can secure the desired results.

The apparatus operates upon the well-known principle that, if a coil of wire is set up to intercept radio signals, it will intercept maximum energy when in a certain relation to the direction of the incoming signals and minimum energy when in another certain position—this last position being at right angles to the position of maximum reception. If the support for the coil is so constructed that the coil may be revolved through a complete cycle of 360 degrees, it is only necessary to note the degrees on the dial scale provided at which maximum and minimum signal strength is indicated, as the coil is revolved, in order that the direction from which the signals are coming may be accurately and quickly determined.

which is sending radio signals, it is necessary for two receiving stations, having direction finders, to observe the direction from which the signals come to their respective stations. Then by the simple method of triangulation the location of the sending station may be obtained. If, on the other hand, a station, such as a ship or airplane, wishes to locate its own position, then it must obtain the direction of two sending stations whose positions are known; using the line between the two sending stations as a base, by triangulation the receiving station can determine its position at the apex of the triangle.

The Wireless Improvement Company of 47 West Street, New York, U.S.A., which specializes on radio compass equipments and beacon station equipment, have recently finished supplying more than two hundred radio compass coil equipments to the United States Navy for installation on its fighting vessels, and has also just completed a large order from the United States shipping board for complete installations on vessels of the shipping board and on army transports. It has further just completed large orders for the Imperial Japanese Navy and others. The engineers of this company are constantly studying the various shipping, aircraft and navigation problems in order that radio compass equipments may be quickly adapted to any condition or problem that may arise either in the commercial or military fields of either the United States or foreign countries.

Now that radio compass equipment is standardised and simplified in operation, it can truly be said that no one need ever be "lost," even though all other means for obtaining position should fail or be unavailable.

A ship in a fog unable to sight either sun or star—the submarine traveling under the surface of the water or lying on the bottom—in fact any vessel or place cut off from the usual guides to navigation or position—may still, by means of radio waves, which penetrate all media and a radio compass which quickly determines the direction of these waves, find its position, though lacking the light of day or the sight of celestial or terrestrial objects.

Equally wonderful is the fact that "Radio look-outs" may now retire to safety below the surface of the earth or behind fortifications which render attack impossible and without observing anything other than the dials of their instruments, can locate the sneaking and hidden submarine as soon as he opens his "Radio Mouth" to communicate with others. In the same way advance posts of armies, look-out or signal stations or any part of an enemy organization using radio signalling may be located.

The lost aviator winging his homeward way from over the enemy lines, or blown off his course in the pursuit of peaceful voyages, is guided home and safe into his landing station by the invisible radio waves impinging upon his finder coils in the direction from which these waves emanate—namely the modern radio beacon station.

## Engineering, Financial, Industrial and Commercial News

RAILWAYS, NEW LINES, SUPPLIES, for use on the express trains between Tokyo and first six months of the year 793,431 tons of cargo ETC

New Sumatra Line. In the Asahan district of Sumatra the Deli Railway Company has obtained larger in width, permission to run a line from Kisaran to Kota Pinang.

Rolling Stock, New Zealand .- The New Zealand government will expend about \$8,516,375 for the purchase of rolling stock covering 65 locomotives, Houses of the Diet. 35 passenger cars, 12 brake vans, and 4,092 freight cars.

Tenders will be invited in England for the manufacture of 25 locomotives and 2,500 freight cars; and tenders in New Zealand for the building of 1,000 freight cars. In addition the department will build 20 locomotives, 35 passenger cars, 12 brake vans, and 592 freight cars in its own shops. Twenty locomotives are now being built under contract by Messrs. A. and G. Price, all to be delivered within five years.

New Celebes Line .-- The result of the public tender for the laying down of railways in South Celebes at which only Dutch firms competed is as follows:-Messrs. Zuurmondt and Vrouwen-1,125,000 glds.; Volker 1,108,000 glds.

This is the first time that the method of public tender has been followed for such work.

Electric Monorail Tramway for Tokyo .- With a view to relieving the congestion of traveling in Tokyo and as an auxiliary to the municipal electric-car service, business men have approached the government for permission to build a monorail electric tramway over the rivers and canals in Tokyo. The scheme proposes to introduce cars capable of accommodating 50 persons and running at an average speed of about 25 miles per hour. The estimated cost of such a line is \$815,000 per mile and the proposed capital of the company is \$7,500,000.

Electrification Rejected .- The railway electrification plan proposed by Japan's Railway Department failed to obtain the approval of the House of Peers, and the government must wait until next session to get it passed. In business circles the failure of the electrification scheme is believed to be due to unjustified popular suspicion in regard to the Railway Department's motives in its attempt to create a semi-official power company.

Proposed Nanchang-Chaochow Railway.--Canton. Chaochow and Swatow promoters are reported to have formed a plan to construct a Nanchang-Chaochow railway at a cost of \$6,000,000. One of the objects of the plan is said to be to get rid of foreign interference in Chinese communications and transportation.

If true, the promoters had better get in touch with the Railway Board at Peking, where they may be informed that the concession for this particular line has been promised to Pearsons & Sons, the great british firm of engineers and contractors. - Ed., F.E.R.

Shimonoseki. These cars are designed to have less were carried on its lines. This was a decrease of vibration and less noise than the old ones. They 109,324 tons compared with the same period last will be six inches larger in height and nine inches year.

spread over a period of ten years for the con- way project is announced in the building of a struction of new lines has been granted by both road connecting Bagdad with Basra. This was to

and twenty-one light railway lines. The total which was to carry German imperialism to the credit for the light railways is Y.155,000,000. Persian Gulf and to the gates of the British Indian When all construction credits for the ten years to empire. This link, however, in the original Gercome are taken together they will aggregate man project was the part of the road which it Y.556,000,000.

plan are 224 miles in length, and the total length the eastern terminus of the road. The fact that of light railways is estimated at 772 miles. While there were indications that the Germans were prethe standard railway lines are to be built in com- paring to make Koweit eventually a naval base paratively remote parts of the country some of caused a halt in the plans. A British company the light railways are to be laid in more developed had control of the navigation of the Tigris and parts of the country.

Tokushima and Shikoku; Matsuyama and Yawa- Thus Great Britain was not inclined to permit the tahama, and Shikokn; between imari. a well building of a railroad into this region without hoven 1,170,000 glds.; Mesman and De Munnik known pottery center in Kyushu, and Sasebo; one being assured she could have a master control and between Ota and Fukui, in the Hahntai districts: that the road would not be a menace to her Eastand one between Nanao and Wajima, a lacquer ware centre in Ishikawa prefecture.

> Korean Railway Development .- When the projected lines are completed in Korea, over 1,500 miles of railway will be added to those already laid, which approximate 1,160 miles of broadgauge and 188 miles of light railways. The construction of a light railway has been commenced between Hamheung and Huchang, aiming at the exploitation of North Korea, along the Yalu River. Another company with a nominal capital of \$7,500,000 will be formed for laying a light railway, which is to serve in the exploitation of the forests and of the mineral resources along the Tumen and Yalu Rivers. This will consist of 2 lines, with a total length of 205 miles. It is hoped that construction will be commenced next year of a railway in Western Korea projected by the Oriental Development Co. A survey has already been made of the route to be covered by the lines of the North Korea Railway Co., which the tunnel through the Taurus mountains was is in process of organization, and capitalized at \$5,000,000.

New Zealand Railway Earnings .- During the first 11 months of the fiscal year ended March 31, 1920, the railways of the Dominion earned \$25,020,817, as compared with \$24,277,177 for the entire fiscal year ended with March 31, 1919, with amounting to \$17,751,994 expenditures respectively. During \$16,101,180, months for the fiscal year ended March 31, were 11,466,235 passengers and 1920, there 5.490,448 tons of freight carried, as compared with 13,355,893 passengers and 5,661,340 tons of freight for the entire fiscal year ended with March 31, 1914.

Building the Bagdad Railway from the East .-Credit for New Lines, Japan.-The credit A revival of the Bosporus and Persian Gulf railhave been the easternmost link of the great Ger-The construction program calls for five standard man Berlin-to-Bagdad scheme, and the extension seemed would be the last to be built. In the The five standard lines to be built under the German scheme Koweit and not Basra was to be another British company sent the products of its Among the projects are lines between Takamatsu Persian oil fields to ports at the head of the Gulf. ern possessions. The war brought a solution to these questions. The main line of the road to Bagdad is completed only to Nisibin, 350 miles west of Bagdad, and the eastern extension will soon be in operation under British control. Under these new conditions Bagdad is first linked up with the world, not from the west but from the east. The British are endeavoring to straighten out affairs in Mesopotamia, over which they have continued to exercise control since the war, through an authority vested in a Mesopotamian administration. This administration has already brought a security to life and a development of industries to Bagdad, and it aims at the completion of important irrigation projects undertaken before the war. The building of the road to Basra, as an outlet of the products of the Mesopotamian valley and an inlet for Western products, would thus appear to be but a part of the development of this ancient region under British influences. The most difficult parts of the main line of the Bagdad railroad have been finished; completed soon after the beginning of the war and the Jerablus bridge over the Euphrates was built in 1915. The Turks used the road during the war as far as Nisibin, and from there carried supplies to Bagdad by motor and caravan. The completion of the new Basra link of 350 miles evidently awaits the final settlement of the fate of Constantinople and the adjustment of national interests in the near East. But it is as important to-day as it was before the war that the completed Bagdad railway, to fulfill its great purpose as a civilizing influence and as a link between the East and West, shall be not a political but a commercial and economical project.

Nationalization of Railways, Japan,-The Minister of Railways has given notice that the New Passenger Coaches, Japan ... Thirty-seven S.M.R. Freight Returns ... The South Man nationalization of the Narita Railway and the new passenger coaches are now under construction churian Railway Company reports that during the Koyyetsu Railway will be effected September 1.

## Your Money's Idle Hours

Because of the increased burden which war and resulting economic disarrangements have placed upon the dollar quicker turn-over of working capital is a most important factor in the financing of every business.

Payment of higher interest rates will not always secure funds. In a situation where larger amounts are required for handling individual transactions and restriction of loans may be necessary to provide for essential activities, "side-tracked credits" are doubly undesirable.

A measure of relief comes when deliveries and collections are speeded up by reducing delays which even under normal conditions are often allowed to clog the processes of trade. To this relief, the Irving contributes by direct collections everywhere in America and by tracing shipments, notifying consignees of arrivals and presenting drafts by messenger daily in all parts of Manhattan. The straight line to results is the unfailing rule of Irving specialized service.

## IRVING NATIONAL BANK

WOOLWORTH BUILDING, NEW YORK



#### ELECTRIC LIGHTING, TRACTION. POWER, ETC.

Council of Vladivostok is granting a concession Li have 14 machines which are run by electricity. granted to the Gochome Tramway Company for a for the operation of the municipal electric car ser. This factory employs 18 women and 16 men. Most tramway to be operated by gas, between Gojome vice and roads.

direct tramway between Takaradzuka and Arima, wise be unemployed. the popular hot spring resorts near Kobe and Osaka. The Arima Tramway Company, with a capital of Yen 3,000,000 and the Takaradzuka Tramway Company with Y.3,500,000 are being formed to compete for the franchise.

Karachi Electric Supply Corporation .- The Karachi Electric Supply Corporation (Ltd.) will increase its capital from \$324,400 to \$963,200, to provide for an enlarged generating station to be equipped with 1,000 kilowatt steam turbo generators. Each of the new units will have a greater capacity than the total capacity of the present plant.

Osaka Electric Light Co.-It is reported that the municipalization of the Osaka Electric Light Co. is imminent. The Company admits that it is in a most difficult financial position.

In connection with the purchase of the muchtalked-of Joto line, now held by the Government, the Kyoto-Osaka Tramway Co. has resolved to raise Y.5,000,000 debentures through the Industrial Bank of Japan, and also to borrow Y.2,500,-000 from the Bank.

Kobe Electric Tramways .- The municipal thorities are spending \$5,000,000 in extending and improving the tramway service. A new line between Kanocho and Minatogawa, is being constructed at a cost of \$4,000,000. The city will soon be in the market for fifty four-wheel trailers and twenty bogie cars, estimated to cost about \$1,000,000.

of Tramways. Japan.—The Municipalization Municipal Office of Yokohama has started informal negotiations with the Yokohama Electric Tramway Company for the purchase of the street car system.

Negotiations have been started by the Municipal government of Osaka with the Osaka Electric Light Company over the plan of purchasing the latter's plants and business.

Tungsten Lamps, Japan .- The annual consumption of tungsten electric lamps in Japan amounts lamps made for export annually brings Japan's produced experimentally from Tasmanian ores. total production up to 37,241,000.

New Hydro-Electric Plant, Tokyo .- The hydroelectric power plant of 120,000 horse power, near Ryuo-ma-chi, directly west of Tokyo, will be completed within a year. The estimated cost is Y.20,000,000. The city of Tokyo is now supplied with electric power from the hydro-electric plants of Kinugawa, Katsura-gawa and Inabachiro aggregating 140,000 h.p.

Market for Small Electric-Light Plants in Amoy, China .- The return from abroad of numerous wealthy Chinese who are establishing themselves in the Amoy district, at a distance from the regular electric service stations, is expected to develop the market for small electric generating plants. A branch of a Shanghai agency for such plants has already been opened there, in charge of an American-trained Chinese electrical engineer.

Power for Knitting Machines .- Electric power to run knitting-machines is coming into populari. fecture, and to the Uwajima Electric Railway in every way to the best in America, are being

ty in Canton, and the girls working in small Company for the extension of its lines near factories are able to conserve their energy and Uwajima, Ehime Prefecture. give their whole attention to fitting and controlling Electric Tramway Concession .- The Municipal the machines. Kwong Mun-hing in Cheung Shan New Tramway, Japan .- A charter has been of the women are able to turn out about 20 pairs and Ikkaichi, Akita prefecture. of socks daily. Similar small factories can now New Tramway Project, Japan.—Two projects be found in every section of Canton, offering Nagoya Tramway Municipalization.—Following are being investigated for the construction of a work to many girls and women who would other the announcement that the Osaka and Yokohama

> Hydroelectric Power Plants for Mysore.-The valley of the Cauvery, Mysore State, India, has been surveyed, and the first main installation, that at Sivasamudram, has been working successfully for many years, supplying power and light to the Kolar gold fields, Bangalore, and Mysore; but the original provision was soon seen to be below the growing needs of the State and from time to time additions have been made to the plant erected in this place. The Kolar gold fields and Bangalore have asked for a greatly increased amount of power, and the Mysore government has already done much to settle the problem. The storage of the waters of the Cauvery by means of the Krishnarajasagara Dam has assured the necessary amount of water power for the present needs, for with the flow of water now available the power can be raised to over 25,000 horsepower—that is, 2,500 more than the present capacity of the plant. The latest government order gives authority to the chief electrical engineer to place a sixth installation at Sivasamudram in order to meet a new demand from the Kolar gold fields and Bangalore. Much of the old machinery which has done good service is to be scrapped and replaced by new.

Electrolytic Zinc Works, Tasmania.-The manufacture of spelter is now being carried on at Hobart adopted from an English system. The oxygen in connection with the hydroelectric power scheme sterilization machines which are in use in many installed by the Tasmanian government. In addition to spelter, zinc sheets are being rolled, and sure an unlimited supply of water, which the sysit is proposed to extend the manufacture to the tem now in use cannot do. following: Lithopone blocks for marine boilers; zinc shavings for the gold industry; zinc dust for sherardizing metallic aluminium; ferro alloys; zinc alloys; zinc chloride; zinc sulphate; caustic soda; bleaching powder; other chlorine products: and calcium carbide. The outlay of these works is estimated at £1,500,000 (\$7,299,750), and the plant, which is now producing 70 tons of spelter per week, is being extended to produce 100 tons a day. In 1918 these works produced from New South Wales ore 3,822 tons of spelter, valued at £152,880 (\$743,990), and in 1919 3,668 tons, valued to 23,000,000. The number of tungsten electric at £160,660 (\$781,552). In addition 285 tons were

> Monopoly May Not Be Granted to Peking Electric Company .- It is intimated in a recent issue of the Peking Leader that a renewal of the monopoly may not be granted to the Peking Electric Light & Power Co., as the service has not been found entirely satisfactory, and it is thought, therefore, that no barrier should be placed in the way of any other concern which might desire to compete. It is understood that the present company is planning to establish new mains and erect a new power station in an attempt to meet the wishes of its consumers, the materials for which will, of course, have to be imported.

New Electric Tramway Construction, Japan. ment of the Imperial University. The Charters have been granted to the Nagoya Elec- has not yet been selected. tric Railway Company for the construction of a line between Inuyama and Cta, in Aichi Prefec- New "Movie" Theatres, Japan .- Two producing ture to the Shingu Railway Company for an exten- corporations of \$10,000,000 were recently formed sion of three miles to its line in Wakayama pre- in Japan. Hundreds of luxurious theatres, equal

municipal governments were negotiating to take over the city tramways comes the news that a similar step has been taken by the Nagoya authorities.

#### WATERWORKS AND IRRIGATION

Water Works. Wellington, N.Z ... The council will expend-about \$500,000 in cutting two tunnels through the hills near the city to bring water from the Orongorongo River, with the additional expenditure of \$1,119,295 for extra mains and other expenses to provide a water supply sufficient for a city of 130,000 people.

Waterworks, Madras.-The city of Madras has under consideration the installation of a modern sewage and water system. These projects will create a market for sanitary appliances.

Tokyo Waterworks .- The machines for the use of the City water works will be installed in the Tamagawa canal near Wadahori the first of August. This equipment is being brought from America through the united efforts of the Health Board and the City Water Works Department. They expect that an unlimited supply of pure water can now be supplied to the city. The present system of filtration now used by the " water works was cities of America give perfect satisfaction and in-

#### BUILDINGS

New Theatre for Manila .- One of the most complete and best equipped theatres in the Far East is projected for Manila, P.I., by the newly incorporated National Theatre Company, the directors of which announce that they will erect a five story structure of steel and concrete, seating 1,500 persons and having a stage large enough to accommodate 200 performers. The cost is estimated at P.1,500,000. General Emilio Aguinaldo, leader of the insurrection against the United States, Senate President Manuel L. Quezon, and 48 American and Filipino capitalists and officials are share holders. The building is to include a roof garden, cabaret and grill. Fittings throughout will be of Philippine hardwood. The auditorium chairs will be specially constructed for the tropics, and the ventilating system will provide cold filtered air to be piped throughout the building. Shower baths in the dressing rooms for the actors and actresses are another innovation.

New Insane Asylum, Tokyo .- The Japanese Diet has appropriated Yen 600,000 for the construction of a new insane asylum to accommodate 700 patients. It will be attached to the medical depart-

New York playhouses.

Government Buildings, Tokyo .... The Japanese Diet has sanctioned the expenditure of Yen 6,000 for surveying a large vacant plot of land located near the Sakurada Gate of the Imperial Palace and extending from the General Staff to the Foreign Office. The land is to be employed for the erection of new and imposing official buildings which will include Parliament, Home, Finance, and Education Ministries, an Army and Navy Club, and other edifices. The plans and estimates for the entire scheme are as yet uncompleted, though the estimate for the Home Office building calls for the expenditure of Yen 6,000,000.

New Museum, Japan.-The Department of Education will ask for Yen 1,300,000 for the erection of a new museum to combine the science exhibits now housed at Ochanomizu-bashi, and in the Imperial Museum.

Meiji Shrine Completed .- The Meiji shrine, built at Yoyogi in memory of the late Emperor Meiji Tenno is nearly finished. The shrine and the spacious gardens surrounding the buildings will be open to the public on November 2, when a grand religious festival is to be held in celebration of the completion of the construction. The building has taken full six years, the cost amounting to Y.5,000,000.

New Shanghai Hospital .- The Cantonese Commercial Association is planning a new hospital for Cantonese residents of Shanghai. Mr. Chun Bing-him is the chief promoter. The hospital will be erected in Jukong Road, Shanghai.

Burial Building, Tokyo .- A Y.10,000 building to be used for burial services by the poor of Tokyo is being erected by the Joso Kaikan, or Charitable Undertaking Society. This society was founded last winter by a group of public-spirited people of 60 cases a month.

#### BRIDGES

built. The Imperial Theatre in Tokyo seats 7,500 Owing to the heavy motor trucks which are coming secutive years. In the event of the completion of of Yen 2,000,000

#### PUBLIC WORKS

Nagoya Public Building Program .- Plans are being promulgated for the carrying out of such public works as the extension of five main lines, estimated to cost \$4,237,250; the enlarging of primary school buildings, to cost \$2,243,250; the construction of dwelling houses for rent to relieve present congestion, to cost \$299,000; and the rebuilding of the contagious diseases hospital at a cost of \$493,500, all of which will provide employment for all laborers in Nagova.

which the larger portion goes to the construction proved tenders will be invited. and reconstruction of roads in the colony, with special reference to motor traffic, and the opening Dredgers, Mukden.-Tenders are desired for a up of new building sites all over both the island dredger of the trailing suction type, to cost about appropriations for roads and other public works fications, for use in connection with the Liao River include appropriations for the construction of resi- Conservancy. dences for officers and employees of the colonial government, but do not include the construction of the hotel and apartment houses proposed by the government which apparently will be carried out during the course of the year and for which \$1,500,000 is already provided. There will be more building carried on in Hongkong in the next year than in any five years in the colony's history.

#### WORKS, DREDGING, DOCKS, ETC.

Kanda. They have been attending to burial ser- are now being considered for the reconstruction and out of Peking. It is a macadam road, 15 feet vices for all poor people who apply to them with improvements to be made on the Yokohama harbor, wide, with a granite slab, 3 feet wide, and a 3-foot a card from the police proving their claim to as well as plans for reconstructing the harbors of earth embankment on either side, giving a total charity. At present the Society deals with about Kobe, Shimonoseki and Kuratsu. The Yokohama width of 27 feet. It is 13 miles long and an addiharbor is to have the most attention, the work to tional stretch 3,500 feet in length was built be done on an elaborate scale. According to the through Tungchow. The construction work was programme adopted a great piece of reclamation under the direction of a captain of the United work is to be raised along the present breakwater States Army, stationed at Tientsin. A sum of off Kanagawa, and the seabed of the harbor limit \$200,000 was expended on the project, one-half is to be dredged out to the depth of about 40 feet being contributed by the Flood Relief and Conser-Tokyo Bridges to be Rebuilt.—It is expected to enable steamers of between 30,000 and 40,000 vancy Commission, a Chinese government instituthat work will begin this month on the rebuilding tons to come alongside the piers. The land to be tion, and the remainder by the American Red of 30 bridges in Tokyo, costing Yen 8,000,000, in reclaimed will be about 1,000 ken in width. The Cross Flood Relief Committee. It is to be exorder to make them safe for the heavy cars which enterprise will take, it is estimated, about Yen tended to Tientsin, which would bring the latter are soon to be placed on the Tokyo tram lines. 14,000,000, to be spread over a period of five con- city in direct highway connection with Peking,

people and in attractiveness rivals the pick of the into use in Tokyo, it is also necessary to rebuild this reconstruction work, the present pier near 200 other bridges, which will entail an expenditure Yokohama station will be used exclusively for passenger vessels, while the freighters will be moored at a hatoba to be erected on reclaimed land. In the center of the reclaimed land, rails will be laid and a complete railway connection will be established, which will be used in transporting freight from the boat to the destination points. Many sheds and warehouses will be built in which to store goods landed from the steamers.

> Haiho Conservancy.—The Haiho conservency board has authorized the purchase of a trail-hopper dredger to be used on the bar in an effort to maintain a channel that will permit vessels of a draft of from 19 to 20 feet; the construction of an additional pumping station to discharge more effectively the silt dredged from the river; and a new pipe line some 3 miles in length. The estimated cost of Public Works, Hongkong.-The total appropriation the pumping plant is \$180,000 and of the pipe line tions for next year aggregate about \$4,000,000, of \$100,000. After the plans and estimates are ap-

> and the mainland portions of the colony. These £130,000 in accordance with the engineer's speci-

#### ROADS

Road Loan Law, Japan,-The Road Loan Law passed by the Diet authorizing the government to issue loans for the purpose of covering the expenses for the repair and building of public roads has been placed in operation.

Peking-Tungchow Highway Costs .... The public highway from Peking to Tungchow started to provide employment for the flood refugees of Chihli Yokohama's Harbor Improvement Plans.-Plans Province is the forerunner of other similar highways

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SPORTSMEN'S HEADQUARTERS SHANGHAI AND MANILA

similar work.

will supplement those provided for last year con- 9,000 tons of oil. necting divisional and brigade posts with training and manœuvring fields. The fact that the new roads will not exceed 75 miles in length, suggests lines of communication for the rapid concentration of troops at strategic centers.

#### SHIPBUILDING

Japanese Government Contemplating Shipbuilding Policy.—The Japanese government is considering the establishment of a fundamental shipbuilding policy, but it is not yet known whether it will take the form of the abolition or reduction of the duty on shipbuilding materials, which, it is argued, would adversely affect the country's steel industry; or whether a bounty system will be adopted, which would necessitate an annual appropriation of about \$5,000,000, to be effective.

Japanese to Build 50 Big Ships.—The Kawasaki Dockyard Co., Kobe, Japan, which recently announced plans for a marine insurance company, now reports plans for building during the next two years 50 steamships of from 9,300 tons to Kawasaki Launching .- The Atlantic, a freighter a total of 30 ships of 300,000 tons to be built. building 30 freighters of 9,100 tons and 10 freight- that the British India Navigation Company has fast ships which the Nippon Yusen Kaisha con- ships will continue steadily now and they will be senger boats, one of them, the Magnea, is expectmanaging director of the company, is quoted as each month. saying that while it is quite possible there will be a decline in the cost of shipbuilding in the future, Japanese Ships to be Classified by Imperial the Nippon Yusen Kaisha wishes to obtain bigger Marine Society.—The shipbuilders of Japan expect and faster vessels as soon as possible. In view of the fact that it is difficult to build large ships having a speed of 20 knots in Japan, the company expects to place several orders for this class of vessel abroad. The total building program of the company covers some 500,000 tons.

New Tankers for Japan .- The Diet has appropriated Y.13,500,000 for the construction of tankers, and this annual appropriation is to con-

83 miles distant. The average cost of \$14,300 per tinue until 1928. Orders for the Erimo, Shiretoko, mile compares favorably with pre-war prices for and Notoro have been placed with the Kawasaki Dockyard; for the Sata and Shiriya with the Yokohama Dockyard; for the Ishikuruwa and Military Road System, Japan .- A plan for the Tsurumi with the Osaka Ironworks. The Erimo, placed are sufficient to keep the yards busy for construction of a new system of military roads Shiretoko, Notoro, and Sata are to be completed throughout Japan, provided for by the Road Ap- in the current financial year and the others next propriation passed by the Diet, will he discussed year. All these vessels will have a displacement this month by the Home Department. These roads of 11,000 tons each, and will be able to carry

> Japanese-American Contract.—The war construction contract between 13 Japanese shipbuilders and the U. S. Shipping Board, based upon a supply of steel in exchange for tonnage, has been carried out in accordance with the following list :-

Shipbuilders			Tonnage	Steel
Kawasaki dockyards	***	***	180,000	850,000
Teikoku Kisen Kaish	a		37,000	30,000
Nippon Kisen Kaisha			34,200	24,200
Osaka Iron Works		***	42,000	21,000
Mitsui Shipbuilding De	parti	ment	13,200	9,100
Fujinagata dockyards			6,300	3,150
Asano dockyards		* * *	36,700	24,100
Uraga dockyards			32,700	19,730
Nitta dockyards			5,500	2,750
Mitsubishi dockyards	***	***	16,800	8,400
Ishikawajima dockyaro		***	10,000	5,000
Uchida dockyards	* * *	***	17,000	8,500
Yokohama dockyards		4.5.4	18,900	9,400
Total		* * *	374,100	250,950

9,700 tons each. The company already has several of 9,300 tons, was launched at the Kawasaki Dockcontracts for building during 1920 and these, yard, Kobe, on August 2. This is the first steamer added to a portion of those mentioned, will make built under the new plan of the dockyard for Foreign yards will build about half of the large ers of 9,300 tons each. Construction of all these under construction in England three motor pastemplates adding to its first of vessels. Y. Ito, launched in the proportion of one or one and a half ed to be completed within two or three months,

> to derive considerable benefit from the recent ruling of the department of communications, authorizing the Imperial Marine Society to classify newly built ships, make surveys, and attend to other business connected with merchant ships as hitherto this work has been done in London, which caused delay in the necessary procedure. The necessary modifications of the regulations of the department of communications are reported to have been made.

Shipbuilding in Japan for 1920.—The prevailing depression in shipping circles is not apt to appreciably reduce the output of the shipbuilding yards of Japan for the year 1920, as orders previously the balance of the year. However, although the most recent estimate places the total tonnage of the 151 ships of over 1,000 tons to be built in 1920 at 717,030 tons gross, which is a slight increase over the 703,000 tons constructed last year, the actual tonnage constructed may not be so large. because of the difficulty being experienced in obtaining raw materials and the possible results of labor difficulties.

Suspends .- The Haneda Wooden Shipyard Shipyard at maneda, Tokyo, has suspended operations indefinitely.

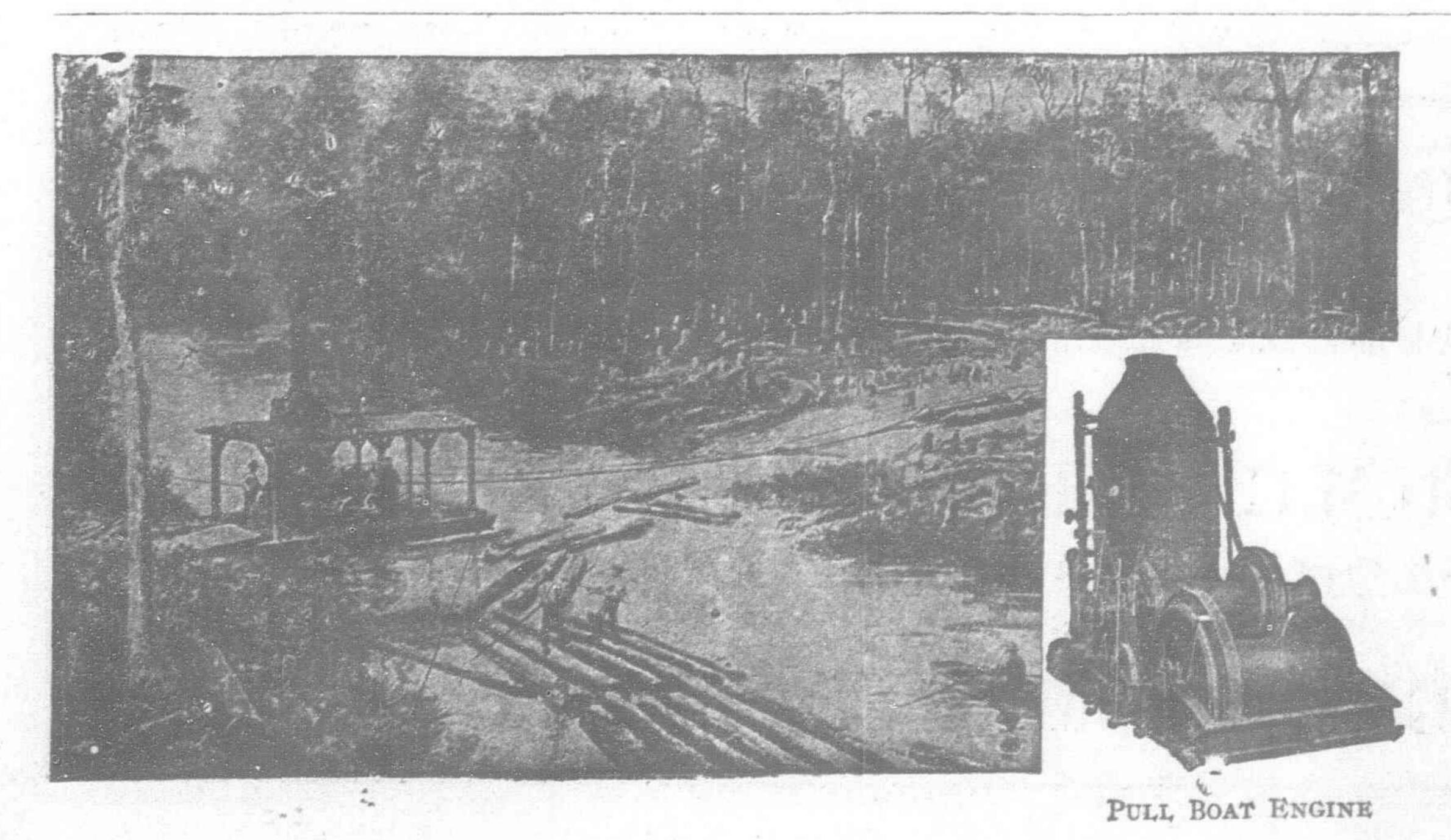
It was founded in 1918 with a subscribed capital of Y.1,500,000. In addition to the natural loss as a result of the general slump, the company was affected more seriously than others because of the fact that it specialized in the construction of wooden ships.

Shipbuilding, Tientsin.—A French shipbuilding firm (Etablissements de Tongku) is constructing at its works at Hsin Ho, near the mouth of the Peiho, three wooden auxiliary sailing vessels, one of 2,500 tons and two of 2,300 tons each. It is also constructing three cargo steamers of 1,800, 2,000, and 2,300 tons, respectively. The plant is equipped with 8 ways for vessels of 3,500 tons, 3 for vessels of 6,000 tons, and 2 dry docks.

B.I.N.C. Building Motor Ships .- It is reported when the vessel will be placed in service on the London-Calcutta line of the Company. These vessels are the first motor passenger boats ever built for ocean navigation.

Submarine School. Kure .- Work has begun on the new submarine school at Kure, to be opened next spring. The principal of the school will be either Vice-Admiral Tatsuwo Matsumura or Rear-Admiral Junichi Matsurura, according to the Jiji.

Commends Japanese Shipbuilders .- The Kokusai Reuter News Service says that The Times pub-



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lishes an interesting article embodying the impressions on shipbuilding conditions abroad, of Mr. James French, Lloyd's chief surveyor in North America, who has lately returned to London from New York, via the Pacific and the Far East.

When visiting the Japanese shipyards, Mr. French was struck by the adaptation to changed conditions, and he mentions particularly the activity going on at old established yards where fine cargo vessels were being built. He also refers to other excellent newly-established yards, most of which, however, are feeling the general falling-off in the demand for tonnage, Mr. French also refers to the excellent work being done in the Hongkong yards, and to the facilities for efficient repair work at Singapore.

Shipyard Launching,-The Tokuyo Maru, a Toyo Kisen Kaisha freighter of 8,800 tons, was launched from the Asano yards at Tsurumi on the 18th; length, 400 feet, breadth, 52 feet, depth 32 feet, speed 15 knots.

Shosen Launching .\_\_ The Osaka Mitsubishi Kaisha steamer Alabama Maru was launched at the Nagasaki Works of the Mitsubishi Company on August 5.

...475 feet Length ... 61 ,, Breadth ...32.9 ,, Depth ... ... 9,500 Tonnage, gross ... ... ...17,700 displacement ... 8,000 Horse-power ... 16 knots Speed (sea speed, 131)

The new vessel is a sister-ship of the Arizona Maru, recently completed at the Works, but some improvements have been made. She will have city will be 13,000 tons.

Accommodation will be provided for 26 cabina and 336 steerage (emigrant class) passengers.

The keel was laid down on February 21 of this year. Construction has been supervised by Lloyd's Surveyors, and she will be classed 100 A1, while the Japanese Government (Communications Department) classification will be B First Class.

Japan's Navy Yards Busy .- Four battleships and four battle-cruisers are to be built under me new program by the end of 1927. With the many other smaller units and auxiliaries, the work will have to be allocated to the private yards in Japan, who look forward to profitable naval orders to offset the slump in private building. The Kure naval dockyard is at present finishing the battle-Eship Nagato of 33,800 tons, and building the battle-cruiser Akagi of 30,900 tons. The other naval vards at Saseho, Yokosuka and Maidzuru are also busy with new construction. The building capacity of these yards being limited and progress slow, the authorities cannot hope to carry out their program without distributing the work to the private yards, and it is given out that two of the new naval units will be ordered from the builders early next year, and after that other orders will be placed within the limits of the appropriation. As nearly all the large Japanese private yards are equipped for this work, keen competition is expected. In the matter of dredges, and special-service boats, the Osaka Iron Works seems to have almost a monopoly.

Philippine Oil Vessels in Mitsui Yard .- The Philippine Vegetable Oil Company is reconstructing the Nuuanu a 1,850-ton tanker, and the 25,000 cubic feet of cold storage and two powerful of the Mitsui Company. The Everett is to be sets of refrigerating machinery. The loading capa- converted from a sailing vessel with auxiliary oil motor into a coal burner.

#### MINES AND MINING

N.Y.K. to Buy Colliery....The Nippon Yusen Kaisha, it is reported, is negotiating for the purchase of the Kosho Colliery in Chikuzen, Kyushu. The steamship company consumes about 400,000 tons of bunker coal a year.

Wolfram in Chihli.-Wolfram, some of it showing an assay test as high as 61.74 per cent., has been discovered in the northeastern part of Chihli Province in the vicinity of Tongshan. The area is reported to be quite large. The central government has assumed control of the mining operations and the Ministry of War has established a Bureau of Administration at Lanchow, which plans to establish a large refinery there in the near future. Up to the present the greater portion of the output mined is being used by the government arsenals, and permission to work the mineral deposits is granted to Chinese only, but recently several small trial shipments have been sent to America and to Japan.

Manchuria Gold Mines .- Two preliminary Agreements between Chinese and British interests for the development of gold-mining properties in Northern Manchuria have recently been concluded. The agreements are now awaiting sanction by the Ministry of Agriculture and Commerce at Peking. These documents contain further evidence of the present tendency to develop mining properties on a co-operative basis rather than on the concession principle. They also indicate the possibilities of a new mining industry open to British participation in Manchuria. Both Agreements relate to gold-mining property on the Chinese or right bank Everett a 3,500-ton freighter at the Uno yards of the Amur River, both within the Homalo district. The Agreements provide for the supply of labor and machinery and for the distribution of the gold on a basis of 50 per cent. to the owner

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Agents for China:

Andersen, Meyer & Co., Ltd., Shanghai.

ments are for five years from the commencement fashion in the winter wash out easily up to five tral Celebes. A state railway will have to be of the operations of each plant to be provided. At funts (66 ounces troy) of gold a day. The Okhotsk laid down in the Malili district that surrounds the the expiration of this period the complete sets of deposits contain many nuggets. Nuggets weighing Bay of Oesoe, which forms part of the Gulf of machinery are to be handed back to the owner in one-half funt are not rare. Last winter one zolot- Boni. The shipping of iron, etc., will probably good and working condition without any claim nik (0.137147 ounce troy) of gold cost 20 roubles; have to take place in Lampea harbor, South of for compensation on the part of the contractor.

Machinery. Kwangtung.-In Kwangtung province the Mo Fung Shang Gold Mining Co. is the only company known to use any foreign machinery. This mine has a small three-stamp mill with a Huntington mill as a regrinder. In the lead mine that is operated in the British New Territory, in the vicinity of Kowloon, there are two 5-stamp batteries with three Wilfley tables as concentrators. Foreign pumps are used in one or two instances in the coal properties, but they are hand pumps.

Silver Lode in Bengal.—The recently discovered silver lode in Bengal is expected to yield 2,000 ounces of silver in one month, with prospects of a steady increase. The mine is located nine miles from the Haludpud, Bengal-Nagpur railway.

Japanese Iron Output, 1919 .- The demand for nig iron ir. Japan during last year amounted to 973,000 tons, while the production aggregated 920,000 tons, so things were satisfactory on the whole. Besides the Japanese manufacture, there was an import of English (Cleveland) and American iron, though it did not amount to much owing to the great need of iron in those countries since the armistice. The output in Japan and by Japanese foundries in China, classified by founfollows: Anshanchan, 60,000 dries, stands as tons; Toyo, 30,000 tons; Hanyang, 100,000 tons; Kyomipo, 100,000 tons; Wanishi, 130,000 Kamaishi, 80,000 tons; Yawata, 400,000 Penkihu, 30,000 tons; others, 50,000 tons.

Australian Silver-Lead Prospect .- A rich discovery of silver-lead in South Australia has been reported. The locality, as advised from Broken Hill, was 233 miles west of the city. Inquiries revealed that the find was made on the Baratta Station, near the old Eukaby mines, about 49 miles east of Hawker.

dealers.

yet been worked.

Gold in Siberia .- Literally speaking, rivers in the Okhotsk district have golden bottoms, says a bulletin of the Bureau of Foreign and Domestic sideration is being given to the working of the clines, and the increase in the total was due to

and 50 per cent, to the contractor. The agree- Commerce. Three men working in a primitive iron ore fields of the Verbeek mountains in Cenat the present time it costs 100 roubles. In spite Malili. The cost of a landing-stage at Lampea of the rich deposits in this district, many con- may be reckoned from the cost of that at Emma cessions are not being exploited. Gold is chiefly harbor, which was erected after the decision to exported to Japan at very low prices. The following method is used: A Japanese having a fishing concession brings along manufactures and spirits from Japan and exchanges them for fur and gold. In the fall he ships the fish by steamer and carries away with him the purchased fur and gold. An American firm has explored the mine purchased from Stepanov and is energetically preparing to work it.

Kotchiu Tin Mines, in Yunnan Province,-The Kotchiu tin mines at Mengtsz-hsien cover an immense area and have been operated by the natives for centuries. The deposits occur both on the surface and beneath it. The shafts are sunk into the hillsides at an angle usually of 450 and are started at random without previous test borings. Many of the shafts reach a depth of more than half a mile, but, because of their horizontal direction, require no ore-lifting apparatus. They are, without exception, extraordinarily narrow and low; the roomiest shaft is stated to be only 4 feet high and a little more than 3 feet wide. For miners half-grown boys are in demand. In some of the shafts an attempt has been made to assist the circulation of the air by means of wind boxes or bellows. A considerable source of riches is said to lie in the Kotchiu mountain system, the whole of which is believed to contain tin ore. The greatest drawback to increased production is tons; the want of water for washing purposes. The tons; rainy season rarely lasts for more than three months, and, for lack of artificial means of conserving the water supply, the ore can be worked with a profit for only about six months in the year. The native process of washing the ore is somewhat similar to the modern hydraulic system. It is accomplished by digging trenches before the time for the big rains. The average ditch is from half a mile to a mile in length, with sufficient slope to cause a gentle pressure. The Yunnan Tin Trading Co. conducts a modern ore-dressing plant Copper Market, China.—In 1918 over 8,000 and smelting works at Kotchin. The ore-ernment will issue new temporary treasury notes, short tons of copper ingots and slabs valued at dressing plant contains 5 trammels for first wash- amounting to Y.100,000,000 on August 16 for the about \$5,000,000 were imported into China. An ing of the low-grade ore, 2 ball mills, with 4 purpose of re-writing the treasury notes of that increased amount was imported in 1919. The im- gigs each for grinding the coarse ore, and 1 large value that mature in September. The new deports for the first three-quarters of that year tube mill for grinding the finer ore, 52 washing bentures will be put on the market by the Bank amounted to over 14,000 tons, but final figures for tables of three models (the Wilfley, the Ferraris, of Japan and its branches and agencies, the disthe total year's importations are not yet available. and the Frue Vanner), and 12 hydraulic classi- count rate being 2 sen per diem. The new issue Practically all of this copper came from Japan fiers. The smelting works contain 3 gas genera will mature February 16, 1921. and was minted into coins. Recently some Amer- tors, supporting 6 reverberatory furnaces, 3 reican copper has reached China through Japanese finers, and 1 blast furnace for handling slag. Each furnace has a capacity of 4 tons of ore per charge, each charge being mixed with sand and charcoal D.E.I. Output of Coal .- The total output of in proper parts, according to the grade of the ore. coal from the government collieries in the Dutch The average requires 18 hours-or from 12 to 30 East Indies for 1920 is estimated to amount to hours, according to the grade of coal and the pur-960,000 tons. In 1922 the amount is estimated to ity of the ore. The smelting works cast the reach 1. 4,000,000 tons. The Dutch East Indies ingot in the iron mold, analyze, and sell according use yearly nearly 1. 200,000 tons of coal. In 1913 to purity, but they also conform to the peculiar the import of coal amounted to 4,000,000 tons, and Chinese practice of casting in sand molds. The in 1919 to 125,000 tons; at the present time the ingot cast in the sand mold is not sold upon import of coal only amounts to 100,000 tons. The analysis, but the surface indications of the ingot private collieries now produce the balance of the form the basis upon which the purchase is made. amount used, less the amount produced by the The capacity of the Kotchiu Smelting Works government mines. The total reserves of coal in is about 18 tons per day, but the native methods the government mines are estimated to amount to of mining and hauling both the ore and the coal 535 million tons. Many rich coal fields have not only permits the smelter to operate for six months of the year and limits the daily output to about 9 tons.

Iron from the Majili District,

work the Ombilin mines and, in connection with these, to lay down the much needed Padang line. Emma harbor, made in Queen's Bay (formerly called Brandy Bay) and opened in October 1892. cost, together with the coaling installation, nearly four million guilders.

#### GOVERNMENT FINANCE

Japanese Government Foreign Bond Investment -Japan's official holdings of British Treasury Bills increased Y.3,000,000 to Y.177,000.000, in July while her French Treasury Bills decreased . Y.3,000,000 to Y.37,000,000. The investment in American Treasury Bills also decreased Y.1,000,000 to Y.87,000,000. Other issues of Great Britain and China remained unchanged.

Gold Standard for Indo-Chine .- The Currency Reform Commission of French Indo-China has drafted a new currency system based on the gold standard, but it may take another year before a law for the actual working of the reform can be

Customs Receipts, Japan .- The receipts of the Japanese Customs for the first nine months of the financial year 1919-20 (April, 1919, to March, 1920) amounted to 61 million yen, which is an advance of about 61 million yen on the corresponding period of the previous year. In view of these favorable figures the past financial year is expected to close with a very considerable surplus.

The balance of trade shows at present an increasingly adverse tendency, as, according to a Tientsin cable, the imports for the past month exceeded the exports by about 773 million yen.

Japanese Treasury Notes .- The Japanese gov

Philippine Bonds to Chase National.-The Chase National Bank of New York and its associates have been the successful bidders for certificates of indebtedness of the Philippines government amounting to \$10,000,000. The certificates bear interest at the rate of 4 per cent. per annum. The Philippines legislature, by an act, approved this indebtedness on May 9, 1918. Under the circumstances, it was also decided to regulate the currency system and to establish a reserve fund. The Chase Bank of New York and its associates offered \$9,659,000.

Japan's Notes and Gold Reserve.-The Japanese Finance Ministry reports that at the end of June the notes in circulation amounted to Y.1,657,843,526.20, which was Y.25,936,005.30 than at the end of May Y.362,018,990.40 more than at the end of June last year. The notes of the Bank Celebes .- Con- of Taiwan and the Bank of Chosen registered deJapan and the Government.

Janual's gold reserve reached Y.1,922,000,000 on July 15. The figure was an increase of Y.10,000,-000 over the reserve at the close of June. The increase was found in the Bank of Japan's holdings.

Kwangtung Provincial Bank .- A new Bank has been opened in Canton under the name of the Kwangtung Provincial Bank. Its capital is stated to be \$5,000,000, and "it is understood" that it has more than two millions in silver on hand to start business. The Kwangtung Erryvincial Bank is a semi-government bank, the government subdollars.

Big general developments are pending.

Mint for Wuchow .... The Kwangsi government will organize a mint in Wuchow shortly. The opening ceremony will take place at the beginning of the next Chinese year. It is reported that the mint has paid a little over \$290,000 for the minting machines which will produce 100,000 twentycent coins a day. Word has been received that the machines are expected to arrive in October.

Salt Gabelle Receipts .- The Chinese salt gabelle revenue up to the end of July amounted to \$8,910,000. Of this sum, \$1,165,000 is being to defray the Peking government expenses for July.

#### BANKS

2,070 Banks in Japan.—The Finance Department reports that at the end of February this year there were 2,070 banks in Japan, with a total capital of Y.1,848,879,885. This was two less banks than in January, but the combined capital increased by Y.48,405,000. The banks conducting trust business in addition to their banking business were 20 at the end of February, with a combined capital of Y.421,700,000, an increase for the month of Y.20,000,000.

Japanese Banking Merger .- The Fifteenth Bank of Tokyo increased its capital to Yen 100,000,000 by absorbing the Kawasaki Bank of Kobe and the in Tokyo. Teiyu Bank of Tokyo, each capitalized at Yen 5,000,000 and the Naniwa Bank of Osaka whose capital is Y.50,000,000. This is one of the biggest bank mergers ever carried out in Japan.

development. Official representatives of the to the slump. Chinese government are on the board of directors.

Yunnan-Chungking railway, the Pukow Harbor Corporation. The entrance of the British firm in Works, the Yangtsze River Bridge at Hankow the Philippine field follows the announcement of and the Peking Tramways, and Public Utilites.

New Chinese Bank.—A new Chinese bank, The promoters are all Chinese.

tion has been organized in New York with Fred A. Leas, Kenneth B. Day, and C. C. Mitfollowing officers and directors: Chairman of ford. The new corporation is capitalized at the board, W. S. Kies; president, Arthur H. P.20,000,000. Titus; vice-president and cashier, Philip B. scribing two million, and the public, three million Kennedy; secretary, Frederick Todd; assistant secretary, Mason B. Starring, Jr. Mr. Titus was recently vice-president of the National City Bank Singapore Revenues.—The Colonial report in and Mr. Kennedy was head of the Bureau of Singapore for 1919 shows that the revenue was Foreign and Domestic Commerce at Washington. \$34,000,000, a rise of \$4,500,000. Trade has im- The Canadian Bank of Commerce and the Interproved considerably. The government has made state Trust and Banking Company of New Orleans a settled policy not to interfere with exchange, were announced as additional stockholders. This is the first foreign banking association to be formed under the provisions of the Edge bill, which permits the organization of international banks with power to deal in long term foreign credits, to guarantee or indorse notes and bills based on foreign commercial transactions, and with the right to purchase foreign bills, notes and obligations from American exporters, and to issue against such obligations and securities their own acceptances, notes, debentures obligations.

New Chita Bank .- In order to improve the financial situation, the Chita government has handed over by the Banking Syndicate, in order organized a banking corporation, which is partly financed by the government, and partly by group of prominent Siberian capitalists, with a capital stock of a hundred millions of gold roubles. The object of the bank is to revive industry, by financing large commercial enterprises and organizing the importation of goods to supply the population, which is a prime necessity.

> Yokohama Specie Bank.—The growing importance of Tokyo as the commercial and financial as well as the political heart of Japan has compelled the president and vice-president of the Yokohama Portland Cement Company has decided to increase Specie Bank to transfer their headquarters from the company's capital by Y.18,000,000 to Y.33,the premier foreign trading bank of Japan and for assignment by the board of directors. head of the Japanese Group in the China Consortium, the president and directors have to be in constant touch with government officials, the Bank of Japan and the great financial and commercial institutions whose head offices are located

#### MERCANTILE FINANCE

Banque Industrielle de Chine.-A New York Emergency Loans on Japanese Stock Certificate. branch of this bank was opened at 27 Pine Street -It is understood that when the Bank of Japan recently under the direction of Mr. O. J. Thomen, and the affiliated banking syndicate arranged to formerly with Redmond Company. The bank take over and hold indefinitely in escrow stock offers American bankers and correspondents ser- collateral used as the basis for loans, in order vice for business throughout the world but es- to prevent a critical break in the market through pecially in China, Indo-China, the Far East, the dumping of large amounts of shares, the loans Raw Cotton and Cotton Yarn in Osaka and

The Banque Industrielle de Chine works in close firm of Lever Brothers, Ltd., have subscribed to corresponding period of the previous year; and cooperation with the best Chinese circles and co- P.4,000,000 of the stock of the new Philippine cotton yarn, 41,710 piculs, an increase of 10,581 operates with the advanced ideas of the Chinese Refining Corporation. Lord everhulme, chair- piculs over the previous month, and of 27,331

the additional issues of notes by the Bank of contracts for the construction of the Yamchow- man of the board of directors of the Philippine the merger of the Visayan, Rizal and Philippine Refining Companies on July 23. Carl W. Hamilton, an American financier who took a prominent named the Hwa Tah Bank, will shortly open up for part in the promotion of these companies, recently business in Nantao, with a capital of \$1,000,000. returned to the islands from New York and will be a director in the consolidated company. The other incorporators and directors are Orville C. Federal Foreign Banking Association .- The Sanborn, representing the Lever interests, Emilio Federal Foreign Banking Associa- Aguinaldo, W. A. Kincaid, Dean C. Worcester,

> Japan's Excess of Imports.—According to Finance Ministry returns, Japanese exports during July amounted to Y.154,330,000 and imports to Y.156,658,000. The excess of imports over exports since January last now stand at Y.480,906,000. The continuance of such excess of imports is due to an increase in cotton by Y.12,987, JCO, as compared with July last year, while silk experted during July this year was less than one-half of Y.55,148,000 as for July last year.

> Japanese Marine Insurance.—The report of the directors of The Osaka Marine and Fire Insurance Co., Ltd., for the year ending March 31, 1920 states:—Profit and Loss Account. The net premia for the year, after deducting returns and reinsurances, amount to Y.3,953,872.99. Appropriations have been made for the underwriting reserve fund and suspense account.

> Nippon Oil Co. Dividends .- The net profit of the Nippon Oil Company for the six months amounted to Y.5,176,928, against Y.6,266,262 for the previous six months. With the addition of balance brought over, the total surplus reached Y.8,393,297, compared with Y.9,343,321 at the end of the previous six months. In spite of this decrease in net profits, the company will recommend the distribution of the same rate of dividends as for the previous term; that is, 35 per cent. per annum.

Cement Company Increase Capital.—The Asano Yokohama to their Tokyo branch in the Kaijo 000,000 by issuing 300,000 new shares to the com-Building, carrying with them half their staff. As pany's original shareholders and 60,000 new shares

> New Oil Refining Company, Japan.—A new enterprise called the Central Industrial Union has been organized in Niigata, for the purpose of investing in oil concessions in Japan and the refining of crude oil purchased from home and foreign concessions. One of the enterprises planned is to import crude oil from Mexico and refine it.

> Fuel Laboratory, Japan. The Ministry of Agriculture and Commerce will establish a fuel laboratory in Osaka this year with a view to establishing Japan's fuel policy. The laboratory will be completed in three years.

French colonies and in Europe. Through intimate were based on security values of such collateral Kobe .- According to the returns of the Osaka association with the Chinese people and the Chin- at something like 60 per cent. of their market office of the Bank of Japan, the stock of raw ese government, the officers of the bank are in values before the boom began, which was, of cotton and cotton yarns in all the warehouses in close touch with industry, commerce and general course, but a fraction of their market value prior Osaka and Kobe at the end of April were as follows: Raw cotton, 456,406 bales, an increase of 57,642 bales over the stock on hand at the end of There is, as well, a Chinese committee in Peking. Lever Brothers in the Philippines.—The British March, and an increase of 156,586 bales over the merchants and bankers. This bank holds the man of Lever Brothers, Ltd., will become chair piculs over a like period of the previous year.

The total amount of loans granted by the banks now idle part of the time, for the crushing of in Osaka and Kobe against the raw cotton and peanuts, and will give an impetus to the cultivat- 150,000 tons of iron annually and plans extensions cotton yarns was Y.60,860,000, an increase of ing of nuts in the Islands. Until such time as month, and an increase of Y.10,379,000 as against ed from China. The import duty will be rea like period of last year. Of the total mentioned, funded upon exportation of oil. Protection for Y.41,069,000 represented commercial paper and the local peanut growers will be given by a prothe remaining Y.19,791,000 collateral security.

#### INDUSTRIES

Ten New Sugar Centrals for Philippines.—The eighteen sugar centrals which have operated during the 1919-1920 crop year in the Philippine islands have produced approximately 75,000 tons of 96 degree centrifugal sugar. Many producers of other crops have turned to sugar cane this year and it is estimated that the output of centrifugal sugar in the islands during 1920-1921 will reach 150,000 tons.

creased to twenty-eight, not including a number of small plants which mill for a single plantation.

The production of muscovado sugar during the last crop is estimated at 150,000 tons, China and Japan taking the bulk of that grade.

placed at close to \$100,000,000.

ment estimates that more than 30 per cent. of the year be devoted to sugar cane.

Peanut Oil, Philippines .- A plan is now being meet foreign competition. carried out for development of the peanut oil industry in the Philippines which will benefit oil Anshan Iron and Steel Works .- The Anshan ventions and discoveries. We are going to try

Y.18,055,000 when compared with the previous local production is sufficient nuts are to be importtective tariff when local production increases.

> New Silk Mill, Japan .- A new silk mill, to be operated by the Kawakami Silk Company, shortly to be established by the Japanese actress. Sada Yacco," which will be operated and managed by women exclusively. It will be built near Nagoya. The company is to be capitalized at Y.3,000,000.

has arisen in South Sumatra with the construction American, a kerosene engine furnishing the power. of a blast furnace. On the present modest scale The local mill is the first in operation of a comof production an annual output of approximately prehensive system of mills to be erected by the The number of sugar centrals will be in- 4,000 tons of quality iron is planned. Domestic company at various centres and towns in North consumption is for the present taken as the gage China according to a scheme corresponding to the which shall generally define the limits of invest- community mill project in the United States. The ment. Precaution is thus taken against such an company plans later to engage in the pressing of output as would necessitate selling the products bean oil and the making of macaroni. of a young industry in a foreign land against estab-A rough estimate by the Bureau of Commerce lished domestic competition. But this minimum New Tientsin Industries. A Japanese cigarette and Industry places the total value of all grades of 4,000 tons covers only pig iron production, factory is in process of erection in Tientsin, and of sugar produced in the Philippines last year at whereas in fact the program is being methodi- a Japanese company is building a plant for the \$50,000,000, while the value of the rice crop is cally extended to embrace all the profitable related extraction of oil from oil-bearing seeds. lines of manufacture, such as iron pipe, bar and Although the rice crop of the Philippines is not hoop iron, and the making of wire nails. Atten- Nitrogen Plant, Osaka. The Osaka Industrial sufficient to supply the home demand, the govern- tion is also being given to the by-products of wood Experiment Institute is completed and one of the distillation, wood alcohol, acetic acid, creosote, first undertakings will be an investigation of the the acreage heretofore planted to rice will during creoline and similar products. Production will synthetic production of food stuffs. be increased to the exporting point only when the Mr. Shoji, the head of the Institute, says: nascent industries attain sufficient strength to "The science of industrial chemistry has made

mills by enabling them to use expellers, which are Iron Foundry, connected with the South Manchuria to find methods for the synthetic production of

Railway, hopes to produce within a short time which will make it possible to produce 500,000 tons within a few years. Most of the output will be used by the South Manchuria Railway, but it is expected that there will soon be a surplus for the general market.

Flour Mill, Tientsin .- The American incorporated flour milling company operating a newlyerected mill in the Russian concession is capitalized at \$100,000, with American and Chinese share. holders, Americans supplying the majority of the capital. The output is 25 barrels, or 100 sacks a day. The flour finds its market in Tientsin and sells at from \$2.30 to \$3 local currency (\$2.02 to \$2.64 gold) per 50 pounds. At present Honan New Blast Furnace, Sumatra .... A new industry wheat alone is used. The milling machinery is

extraordinary progress during the war. Germany and the Allies have made valuable in-

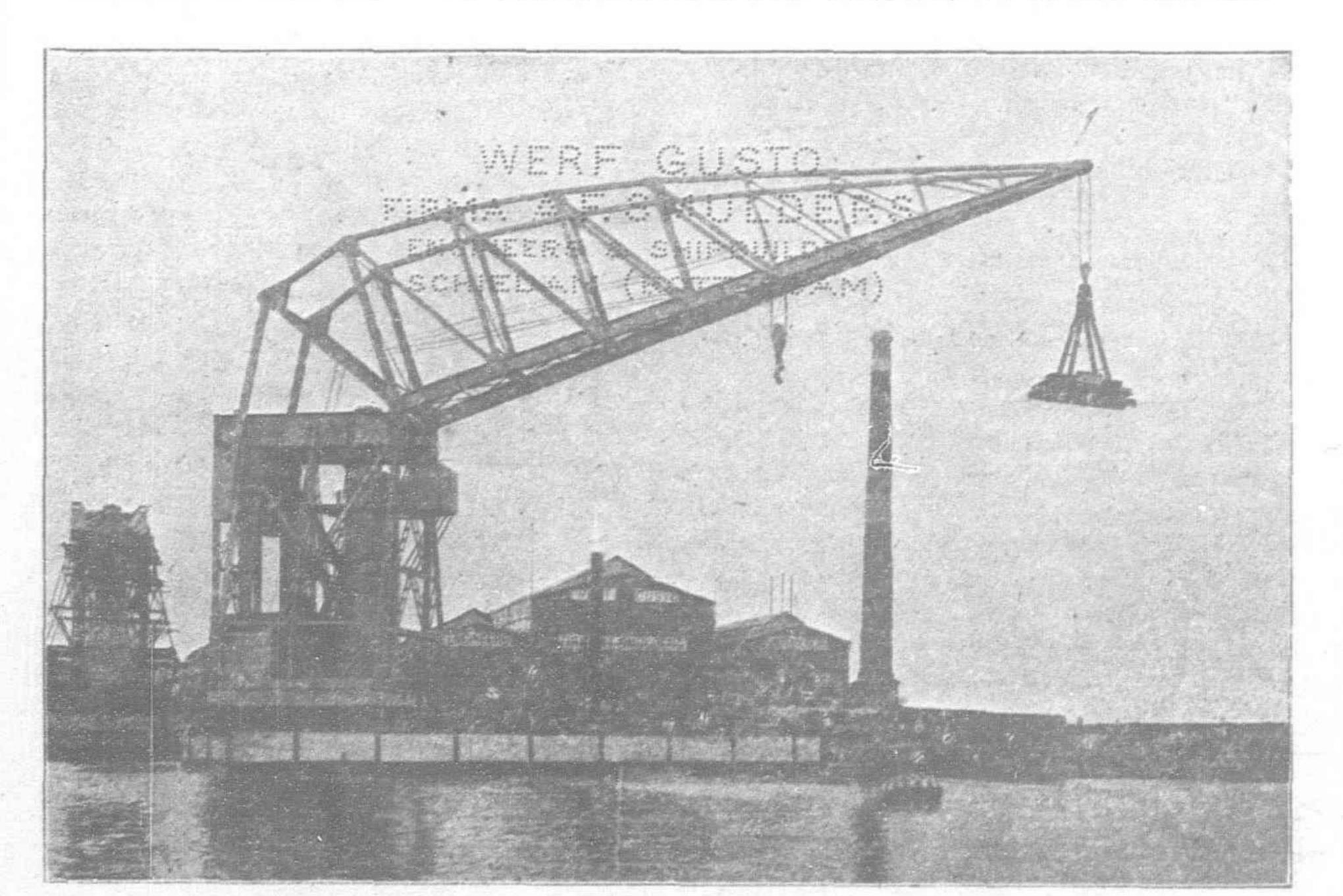
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and several other southern points which in making cigars and cigarettes. heretofore been supplied by Canadian breweries.

Japan Cotton Firm May Locate in Savannah .-

to expend our best efforts in this direction." nounced that it is probable that a branch of his to be placed under government auspices

the Nitrogen Fixation Plant and all the Haber ports on the Pacific, Mr. Tsuji said that the com- will produce all kinds of soap, both in Patents from the German Government. This pany is now shipping enormous quantities every solid and liquid forms, perfumes, beautifiers and plant extracts nitrogen from the air, after which year through New Orleans, Galveston and the usual by-products. Voices have even been

purposes. This plant will help render Japan in Indian Cigarette Factories.-A number of fac- too hopefully, for probably the activities would dependent of fertilizer imports. tories for the manufacture of cigarettes have been be confined to wooden ships. Nitrate works, the opened in southern India due to the increase local spinning of cotton and the manufacture of glass, New Brewery, Japan. The new brewery built demand for this commodity. On account of labor all have their responsible promoters and govern at Tsurumi by the Anglo-Japanese Brewing Com- difficulties in India there will no doubt come, with ment approval. New mines are to be dug in the pany has a capacity of 300,000 cases a year. The the increase of factories, an increase in opportuni- iron ore fields of Celebes. company is taking over the trade in Hongkong, ties for the sale of automatic machinery for use

Successful Korean Cement Factory.—The factory of the Onoda Cement Manufacturing Co., of Cigarette Factory.—The Tobacco Japan, which was formally opened at Pyongyang, Products Corporation of New York are erecting Korea, in May, is reported to have a capacity of a cigarette factory in Woosung Road, Shanghai, 60,000 tons of cement a year, making it one which they hope will be completed by November. of the biggest factories of the kind ever established in that country.

F. Tsuji, representing the Japan Cotton Trading, New Aluminium Works, Japan.—It is reported Ltd., is in Savannah, Ga., making a survey of the that Suzuki & Company of Kobe have purchased

the patent rights for Japan of a new aluminium process and will shortly erect a large plant in that district.

Paper Mills, Hong. kong .- There are two mills of more or less modern equipment in this vicinity, one Hongkong and the other Kongmoon. The Hongkong mill has been forced into liquidation as a result of the present situation of the industry. It is being reorganized and may again come into operation. During the past year it was operated about half the time and produced mostly the cheaper white news or lightweight wrapping grades. The mill at Kongmoon was operated at a loss during the year and produced about 200 tons of lightweight white wrapping paper. This mill is equipped to local Chinese order.

Activity

such food stuffs as sugar, starch, etc. We intend port's facilities for handling cotton, and has an which has long been keenly felt, are about In this connection,, it is reported that the Jap- company will be established there. anese Government has purchased for Y.70,000,000 Besides shipping American cotton through all taking shape for a soap factory which 

> Primitive Silk Industry.—Chinese methods of producing silk are so primitive that it will be a long time before China can offer satisfactory material to the American market, in the opinion of D. E. Douty, one of the American party who visited China to investigate the silk industry. He said:

> "The American silk dealers have often called the attention of the Chinese authorities to the importance of improving their silk industry, but much to our regret and surprise the Chinese authorities can never afford to listen to any suggestions on the subject. In consequence all considerations necessary for the development of sericultural industry in China are completely neglected.

> "It is a matter of regret that China should remain in such a condition of industrial torpor at this time, when there is a growing international demand for silk as a consequence of the growth of women workers' incomes throughout the world."

An official of the Japan Silk Thread Association

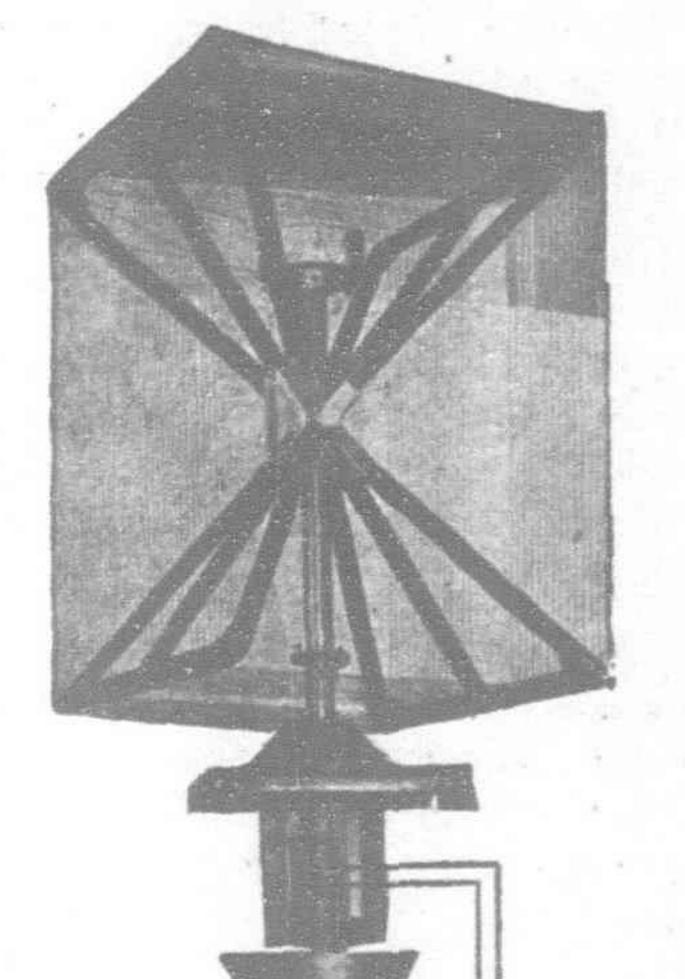
says:

"Improvement of the Chinese silk industry will be beneficial not only to China and America, but to Japan as well, because the limit of production of silk has been reached in Japan, as the crop of mulberry leaves cannot be increased, and Chinese cocoons are needed for the further development of the silk industry here. Close co-operation between China, Japan and America is necessary in order to offer products satisfactory to the silk trade in America."

The U.S. Commerce Reports says that one of the results of the recent visit to Antung of the American Silk Mission may be the changing of methods of reeling tussah silk to comply with the requirements of the American market. One of the large filatures in Antung has already agreed to alter some of its reels and submit a sample bale of silk, as the suggestions of the commission are considered of great importance to the rapidly growing tussah-silk industry in Southeast Manchuria.

make newsprint of the Indian Cotton Weaving and Spinning Industry. grade most used by -A report from Consul-General James A. Smith, news- Calcutta, India, on the cotton spinning and weavpapers, but it makes ing industry of India shows the quantity of yarn such paper only on spun in the six months from September, 1919, to February, 1920—that is, from the beginning of the cotton year 1919-20-to be 299,000,000 pounds and goods woven to the amount of 188,000,000 pounds, E. Indies.—The popular as against 288,000,000 pounds and 159,000,000 ideal of the hour is to pounds, respectively, in the corresponding months make the Dutch East of the preceding year. The exports of Indian Indies self-supporting, yarn by sea from British India to foreign coun-A move is under way to tries during the 11 months ending February 28, install a pulp factory; it 1920, were nearly 141,000,000 pounds, as compared being predicted that with 51,000,000 pounds and 114,000,000 pounds in Australia would take the corresponding periods of 1918-19 and 1917-18, the surplus which even respectively. During the 11 months ending with a small factory would February, 1920, piece goods were produced in Inproduce over local dian mills to the amount of 1,513,097,000 yards, needs. In Borneo and two-thirds of which represented gray and bleached in Celebes railway and piece goods, and 928,653,000 yards were imported other system of trans- from foreign countries, 751,535,000 yards of which portation, the need of represented gray and bleached piece goods.

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#### MACHINERY, BOILERS, FITTINGS, ETC.

Siamese Malaya Needs Machinery and Mining Tools.—As the industries of Monthon Puket, one of the four administrative districts of Siamese Malaya, are almost entirely confined to mining, especially of tin, a considerable portion of the imports are machinery and mining tools, the bulk of which come direct from the United States or Europe, reports Vice-Consul C. C. Hanson, Bangkok. Such importations which, in the fiscal year 1918-19, amounted to approximately £66,000, of the total importations valued at £695,000, are steadily increasing in volume, and it has been suggested that manufacturers of appropriate machinery, tools, and equipment might find it to their advantage to forward catalogs or circulars to the principal dredging companies, giving quotations, wherever possible, c.i.f. Penang, Federated Malay States, as the trade of this part of Siam is through that port, rather than Bangkok.

Indian Imports of Machinery. The imports of machinery and millwork, including belting in 1919, were valued at \$19,006,602, against \$16,984,085 in the preceding year. There were noticeable increases in cotton-mill machinery (\$1,589,723), in boilers (\$389,320), and in electrical machinery (\$324,433). Sewing and knitting machines decreased by \$681,310, and jute-mill machinery by \$389,320. Cotton-mill machinery was valued at \$5,353,150, of which the United Kingdom supplied \$4,412,293, the United States \$519,093, and Japan \$421,764. The share of Bombay was the same as in the preceding year, 91 per cent. Jute-mill machinery amounted to \$1,849,270 as against \$2,238,590 in 1917-18. The United Kingdom accounted for \$1,751,940 as against \$2,011,467 in the preceding year, and Japan only \$64,887 against \$162,217. Electrical machinery was imported to the extent of \$1,265,290, an increase of 35 per cent, over the preceding year. The imports from the United States nearly doubled from \$259,547 in 1917-18 to \$519,093 in the year under review, while the imports from the United Kingdom increased from \$583,890 to \$648,867. The pre-war average imports from the United States were \$64,887 and from the United Kingdom, \$1,005,743. The imports from America have, since the war, greatly increased. Boilers were valued at \$746,197 as against \$324,433 in the preceding year. Only 27,534 sewing and knitting machines were imported as against 57,761 in 1917-18. The main source of supply was the United States with 97 per cent. of the trade. The imports of typewriters in the pre-war year were 6,267, valued at \$324,433. Machinery for tea gardens increased by \$64,887 to \$486,650, and mining machinery by \$194,660 to \$356,877.

Hankow Opportunities.— Maritime Customs statistics may be taken as an indication of the growing demand in Hankow for various kinds of engines and boiler fittings. In 1917 the total value of such importations approximated \$68,900, increasing in 1918 to \$293,900.

Oil Mills in the Dutch East Indies.—American machinery is installed in many of the oil mills in the Dutch East Indies, which vary in capacity from 12 to over 300 tons daily. As this machinery is very well liked, more will doubtless be purchased, as the oil-pressing industry is a growing one in this locality.

#### AIRCRAFT

New Japanese Air Base.— Japan will probably establish, in the near future, an aeronautic base at Mako, in Formosa. Besides serving as a splendid naval base for aerial activity in the future, flying machines will aid the government materially in its work with the aborigines. In addition to the aerodome, a laboratory for aeronautic research will be established.

Naval Aircraft Factory, Japan. A branch factory of the Kure naval arsenal is being established at Hiromura, Hiroshima prefecture, for the object of manufacturing navy aeroplanes and accessories. The work of construction started August 1.

Japanese Producing New Type.—The Japanese Aviation School authorities have decided to produce aeroplanes of a purely Japanese type. Among those already under construction is a machine with the upper plane 10.75 metres long, and the lower plane 10.08 metres long, which will carry an American Holescot 125 H.P. engine. Preparations are also being made for the construction of machines for fighting, pursuing and recommittering purposes.

Proposed Dutch Service to East Indies .- A committee comprising the Directors of Vickers, Ltd. (Holland), including Lieut. Kari Muller

(late Royal Dutch Navy), who is chief of the Dutch Aviation Dept. of Vickers, Ltd., Capt. Cockerell, and several officers of the Dutch East Indies Army, are now investigating various problems in England with regard to the establishment of aircraft factories, etc., in Holland and the Dutch Indies. Aeroplanes and flying-boats, to be used in the Dutch East Indies military aviation service have already been ordered by the Colonial Office from Vickers, Ltd. It is proposed to establish an aerial mail service between Holland and the Dutch East Indies.

Japanese Government Bureau.— Aviation has taken up an important position in Japan. A bureau of aviation under the direct control of the minister of war has been established. A general or an admiral will be chosen as head of the bureau, which will also supervise civil aviation.

Big English Airship for Japanese Naval Cadets.—In October, the Naval Aerial Corps at Yokohama expects to receive from Great Britain a large airship. The craft will measure 170-ft. in length, 36-ft. in breadth and 50-ft. in height. It can fly at an elevation of 1,000-ft. at a speed of 55 miles an hour, the highest speed being 825 miles in 15 hours. The airship is equipped with machine-guns and bombs.

#### TELEGRAPHS, CABLES, WIRELESS, ETC.

To Establish Shanghai Wirzless Station.—The Peking government has authorized the establishment of a powerful wireless station at Shanghai, to be available for commercial as well as official messages.

Shanghai-Wuhu Telephone. Efforts are being made to hasten the commencement of construction of the long-distance telephone between Shanghai and Wuhu, via Nanking.

Dairen-Japan Cable.—It is still expected that the new Dairen-Japan cable will be laid down before the end of the current year. Delay has been caused by non-arrival of supplies ordered from England by the South Manchuria Railway Co.

Research Work for Indian Wireless Telegraphy.—Upon completion of the research work, which is being done in India by a staff of scientists in order to find means of overcoming the meteorological obstacles which interfere with the proper working of wireless telegraphy in India during certain seasons of the year, there will be a great extension of the wireless system in that country, says the Times of India.

Wireless Telephones for Shipping, Japan.—Following the successful experiments in wireless telephony between Kobe and a specially equipped vessel at sea, a combination of 16 Japanese shipping companies have petitioned the Ministry of Communications to equip an experimental central land station at once, offering to contribute Y.20,000 for this purpose, and install the apparatus on their steamers at their own expense.

Expansion of Telephone Service, Japan.—The Diet authorized the expenditure of \$20,950,000 for the expansion and improvement of the national telephone service. Three new exchanges will be opened in Tokyo. Nearly 50,000 applications have been received at the Tokyo Central station for the installation of new telephones. These will be allocated by lottery, and the successful applicant will be called upon to deposit the sum of \$250 towards defrayment of the initial cost of outside construction. In the case of an urgent installation, the applicant can have a phone for the modest deposit of \$750, a percepetible in the h.c.l. compared with last winter when lequacious people were asked \$2,000 for a telephone. It comes high to talk in Japan, and everybody wants to talk. Most profitable.

Tsugaru Cable.—The Diet has approved the appropriation for a submarine cable under the Tsugaru Strait to connect the island of Hokkaido with Honsho. The work will be commenced as soon as possible and concluded next year. The strait is from 20 miles (in its narrowest) to sixty miles wide.

#### MOTORS

Autos in Japan.—A census of motor driven vehicles in Japan gives the following results: Tokio, 9,000; Osaka, 800; Kanagawa, including Yokohama, 650; Hiogo, including Kobe, 500; Kioto, 350; Nagoya, 400; Fukuoka, 200; Shidzuoka, 150; and a few in various other districts of



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is considered to be very small, compared with the ing in price from \$200 to \$625. For use on the numbers owned in other countries. The United soft roads of the plantations the lighter machines States now has 7,500,000 cars, or one to every are preferred. Twin cylinders are preferred both 14 persons. In England, there is one automobile in the heavy and light machines. to every 25 persons; in France, Italy, and Germany, one to every 40; and other large countries New Sumatra Service .- A new motor-buss ser-

Motor Cars to Compete with Ricshas in Yokohama.—Permission has been granted for the of these places lying to the east of the Lake. operation of several hundred baby motor cars in of 25 sen per mile.

required import duty with the understanding that number in India. it will be refunded if the car is reexported by the owner within three months.

firm of foreign-educated Chinese engineers, and ped with side cars. Although the roads in Ceylon the motor-bus service is shortly to be inaugurated. are excellent, the heavy grade in the mountainous

committee for the annual commercial fair held at machines up to 16 horsepower. Bandoeng, Java, is drafting plans for a big motor from the fair held last May.

Japan. The number of automobiles in Japan ing side cars vary from 4 to 6 horsepower, rang-

have one automobile to about every 50 inhabitants. vice from Sibolga on the west coast of Sumatra to Balige on the south shore of Lake Toba, will be extended to Perapat and Pematang Siantar, both

Yokohama, in spite of the protests of the some The Ideal Vehicle for India .- A recent pub-2,000 rickshamen who claimed that this would lication of Commerce (Calcutta), describing the take away their source of livelihood. The new kind of motor vehicle most practicable in India, cars are to carry but two passengers at a charge suggests that, as the many unmetaled roads in India are in bad condition, it is advantageous to have motor cars equipped with low gears with Temperary Importation of Automobiles into easy change, strong springs and steel wheels. Japan.-The Yokohama customs office has ruled Electric lighting and starting systems are desirthat foreign tourists may bring automobiles into able, particularly the electric starter, which is Japan, provided the cars show signs of previous absolutely essential to the convenience of the lady use, and are for personal use only, by paying the driver, of whom there is a large and increasing

Extensive Use of Motor Cycles in Ceylon,— The inadequacy of the street-railway facilities Motor Buses in Canton.-Motor-buses ordered and of railway connections in some parts of Ceyby the Kuangtung Tramway Co. have arrived in lon, as well as the high cost of upkeep for auto-Canton from America. They are now being as mobiles, tend to increase the popularity of motor sembled by the Continental Motor Car Co., a cycles. About half of the 1,200 in use are equipinterior require machines rated from 4 horsepower Motor Car Exhibit at Bandoeng, Java .- The upward, some recent importations having included

car exhibit next year, which compensates for the Motor Transport in the Punjab.—The Punjab decision to exclude motor trucks or motor cars government has for some time had under consideration the question of what railways are required for the development of the province. In Demand for Motor Cycles in British Malaya .- view of the fact that funds are not available in Dealers in motor cycles in British Malaya are the near future for this purpose, the lieutenant ranean (13,056 miles) would be about 450 miles finding it difficult to obtain enough machines of governor has directed an investigation of possible short of Singapore with about 3,357 miles still to either American or British manufacture to meet development by the introduction of motor lorries go. This distance is greater than from Colon to the growing demand. A conservative estimate or light tramways for the transport of produce San Francisco or from New York to London. On places the number now in that territory at from and passengers in tracts where such would be of a voyage from Yokohama to New York, a ship 3,000 to 3,500, varying from 11 to 12 horsepower, benefit. Inquiries made show that in Dera Ghazi using the canal has reached New York when one with from 1 to 4 cylinder engines. The type most Khan a company has been formed for a service passing through the Mediterranean is about 150 in demand is a light-weight, high-speed motor of motor cars and lorries plying between Ghazi miles east of Gibraltar with the Atlantic still to cycle from 21 to 4 horsepower, while those carry- Khan and Dera Ghazi Khan, and it is hoped that cross.

this example will be followed in other tracts of the province, where it is improbable that railways will be constructed for some time.

#### SHIPS

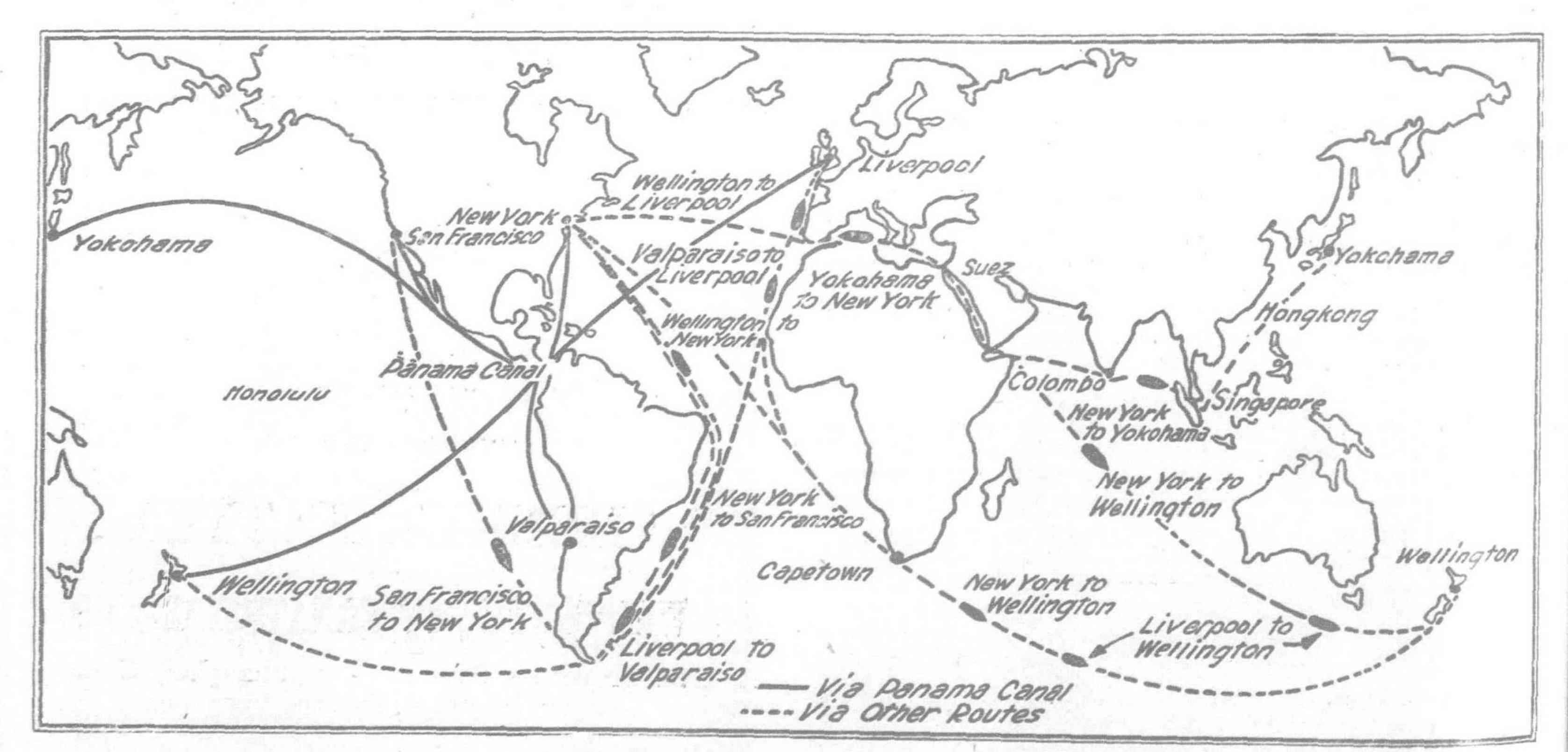
Cruiser Keel Laid, Japan.-The keel of the second class cruiser Isuzu of 5,500 tons was laid at the dock of the Yokosuka naval arsenal on August 9.

M.M. New Indian Line .- A Tokio dispatch states that the Messageries Maritimes intends to inaugurate a new steamship route to India, with Anvels as the starting point, from the middle of next month. The line will be maintained with five passenger boats which will ply between Anvels and Calcutta, regularly calling at Port Said, Aden, Colombo, Pondicherry and Madras.

Time Saved by Use of Panama Route,-Graphic illustration of the time saved on different trade routes by the use of the Panama canal is given in the accompanying map, published in a recent issue of the Panama Canal Record.

Courses of ships between representative ports by way of the Panama canal are shown in solid lines and by alternate routes in broken lines. Black spots along the dotted lines show the approximate position of a ship using the long course when a similar vessel through the canal has reached her destination. Equal speed is assumed but consideration of delays for fuel, supplies, repairs, etc., is omitted. In general, the advantage in this respect is with the canal on account of the excellent terminal facilities.

As an illustration, on a voyage from New York to Yokohama, a ship through the canal travels 9,699 miles reaching her destination while a similar vessel sailing eastward through the Mediter-



How Time is Saved by Use of Panama Canal

Western China Navigation Company has been in this issue of THE FAR EASTERN REVIEW. established in Hankow to carry on transportation Company.

New Naval Auxiliary, Japan ... The Notoro, a special service boat for the Japanese Navy, was completed at the Kawasaki Dock in Kobe during August. She was handed over to the naval authorities and left for Kure.

Lee Chih S.S. Co .- The Lee Chih S.S. Co., with head offices at No. 6 Jinkee Road, Shanghai, will operate one or more vessels in the salt trade and engage in general lighterage and shipping business at Shanghai. Negotiations are under way to acquire a vessel to be placed in the Yangtze trade between Hankow and Shanghai. The prinpal shareholders and managers of the new Company are Mr. A. S. Allen, Dr. A. S. Tenney, Capt. Kearney and Mr. G. B. Leicester.

Shanghai to Ningpo .- The China Merchants Steam Navigation Company has ordered a new boat to be built at the Shanghai Dock and Engineering Co., for the Ningpo run, together with two other boats to be used on the Yangtze River will be named the Kiangping, Kiangnan and the Heinkiangtien.

Japanese Shipowners Organize .... Shipowners of Japan have organized the first representative association. The old Japanese Shipowners association of Kobe has been reorganized as the Nippon Senshu Kyokai (Union of Japanese Shipowners). Representatives of the Nippon Yusen Kaisha, the Osaka Shosen Kaisha, the Toyo Kisen Kaisha, the Mitsui Co., the Mitsubishi Co., and 14 other large shipping companies were elected to the management of the new society. The former association included 77 relatively small shipping firms, whose total fleet consisted of 358 ships of 746,090 tons. The larger steamship companies were not members of this association and had no organization for joint effort. Recent slumps in the shipping situation developed the need for a representative organization and brought the three largest Japanese companies, the Nippon Yusen Kaisha, Osaka Shosen Kaisha and the Toyo Kisen Kaisha, into the new society. The new association has a membership of 101 companies, who own 734 vessels of 2,175,847 tons.

Columbia-Pacific Wants Ships.—Application and China. Vessels of the type desired by the winches, of which 12 have a lifting capacity of business.

Pacific Mail on the Yangtze.—The American Columbia-Pacific Shipping Company are described 5 tons. On her trial trip an average speed of 134

between Chungking and Ichang. In the list of Far East-Puget Sound Clearances .- During the shareholders is the Pacific Mail Steamship year 1919 there cleared from the Far East for Puget Sound a total of 215 ships of which 48 or 22.33 per cent, were American. During the first three months of this year out of a total of 48 Philippine Asbestos .- A firm in Manila owning ships arriving from the Far East, 15 or 31.25 per 2,000 acres of asbestos-producing property in the cent. were of American ownership and during the island of Luzon is obtaining considerable quantisame period there cleared for the Far East a total ties of asbestos, reported to be of Nos. 1, 2, and of 41 ships of which 24 or 58 per cent. were of 3 qualities, with some fibers of 3 feet long. American ownership.

Vladivostok.

to run to Singapore the Harbin Maru, Chili Maru sea otters. and Shanghai Maru while about twenty-five more ships are plying in the Atlantic. All of these are ships of from 9,000 tons to 10,000 tons.

New Admiral Line Ships ... The Admiral line on the Hankow and Shanghai run. The new boats recently purchased from the United States Shipping Board one passenger and one cargo vessel, Travelers to the Far East have noted with satiseach of 10,000 tons capacity, in addition to the three new steamers previously purchased. One of the steamers was handed over to the steamship company on July 11 at Philadelphia and after passing through Panama, will come to the Far East from Seattle, covering the distance in 12 days. Calling at Yokohama, Kobe, Shanghai, Industrial Company, organized by leading Japan-Manila and Hongkong she will later make her return trip to Seattle. The other steamer is expected to be handed over to the company Philadelphia the latter part of November, and is scheduled to leave Seattle for the East on December 1.

> Largest Motorship for Far East.—The Danish East Asiatic Company's motorship Afrika, the world's largest Diesel-engined vessel, was built and engined by Messrs. Burmeister and Wain, of Copenhagen. She is 464 feet long and of 8,597 gross tons. She has a deadweight carrying capacity of about 13,300 tons and an oil fuel capacity of 1,500 tons. This is sufficient for a journey one and one-half times around the world, her daily fuel consumption being 15 tons.

trade between Europe and the Far East. The investing a sum of Y.500 and upwards in the new hull is divided into 3 compartments. Her pro- shares, the company proposes to lease 20 acres of has been made to the shipping board by the pelling machinery consists of 2 six-cylinder motors land gratis at its plantation. If Japanese farmers Columbia-Pacific Shipping Company for two first- of 2,250 i.h.p. The engine-room auxiliary machin- start agricultural work there, employing Mexican class combination freight and passenger steamships ery, winches, windlass, steering gear and pumps farmers employed by the company they will, it is for operation from the Columbia River to Japan are electrically driven. There are 20 cargo said, be able to realize a very remunerative

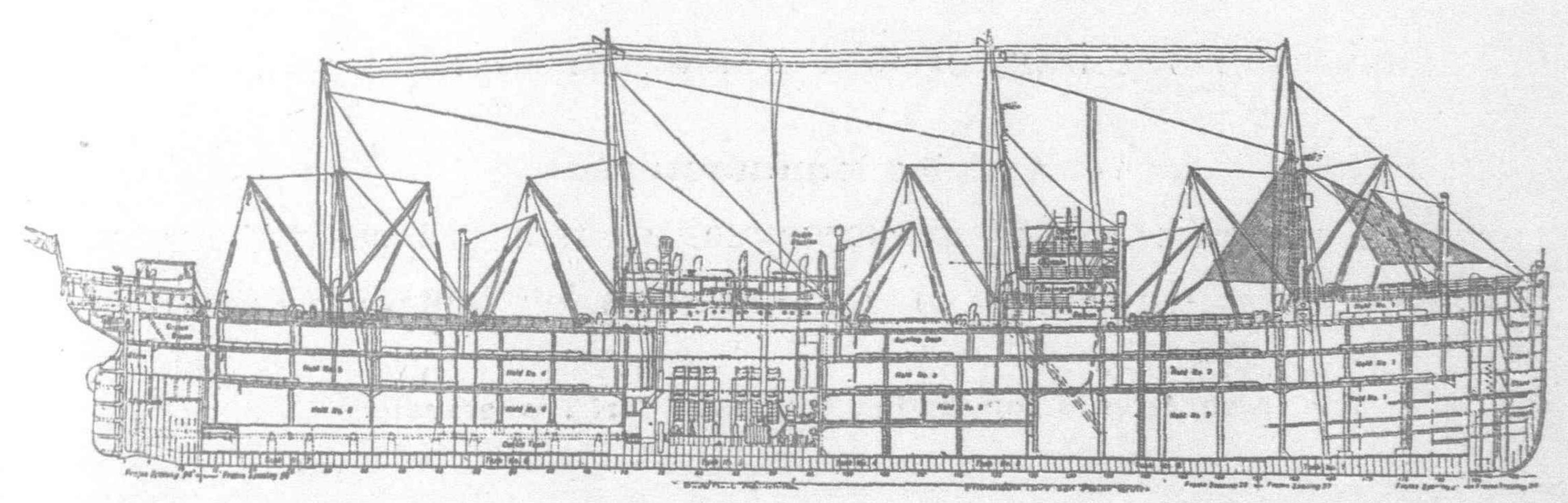
knots was attained.

#### MISCELLANEOUS NOTES

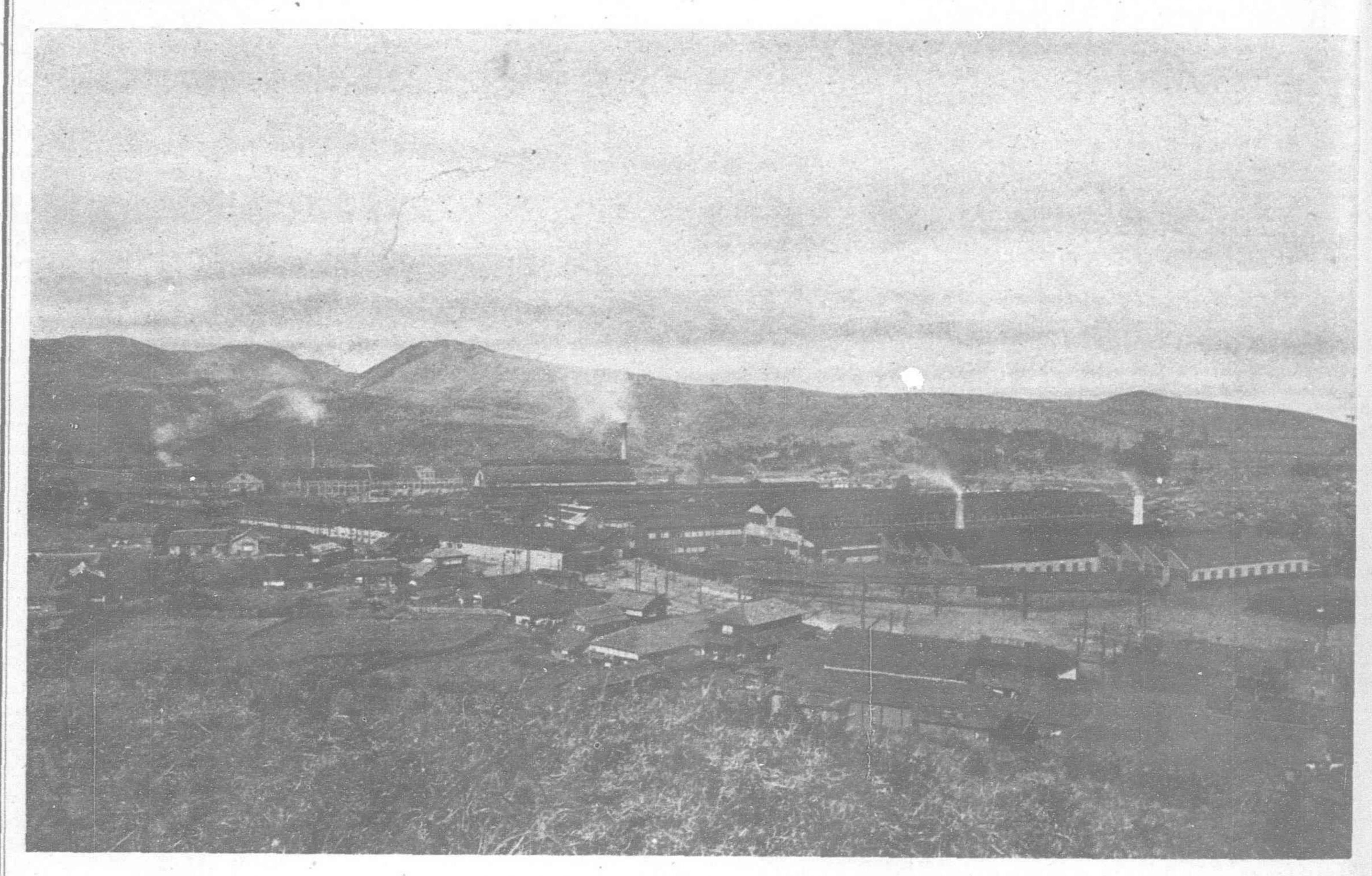
Fur Trade, Japan.—Japan seeks to make China Pacific Vladivostok Agency.-Mr. E. H. fur industry second only to that of silk. The Grooms, assistant general manager for the China Imperial Fisheries Bureau at Tokio is experi-Pacific Co., has established a branch office at menting with live stock and three islands have been alloted by the government for breeding various species of animals. Since 1915 five pairs of K.K.K. Sugar Freights.-The Kokusai Kisen blue foxes have increased to 300. On another Kaisha, or the International Steamship Company island with a start of a few hundred red foxes of Japan, in order to transport some 250,000 tons there are to-day 2,500, while on a larger island of Java sugar to Europe and America, has begun are 300 silver foxes. Much interest is given to

> Bathroom Supplies.\_\_A Pittsburg bathtub manufacturer who returned to America recently from a tour of the Far East is authority for the statement that thousands of the porcelian-lined have been ordered by firms in the Orient. faction the growing number of bathtubs in the hotels at the various ports. Native and foreign home owners in the Orient want to install up-todate sanitary equipment.

Mexico Invites Japanese.—The Japan-Mexican ese residents in California in 1912 with a capital of \$300,000, has exploited several thousands acres in Mexico, the value of the land being estimated at over Y.3,000,000, with a view to inviting Japanese emigrants to engage in agricultural work. It is stated that the district is generally fertile and its climatic condition is highly adapted to the cultivation of rice, vegetables and other produce, and in addition to the promising condition suited to the purpose of Japanese agricultural emigrants, the Mexican government and the Mexican welcome Japanese farmers, who are given the freedom of landownership and citizenship. The company has recently opened a branch office at Kamakuragashi, Tokyo, with an object of raising a number of agricultural emigrants required for the newly exploited plantation in its possession. To The vessel has been specially designed for the those who become shareholders of the company



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#### Articles Manufactured:

DYNAMOS, ELECTRIC MOTORS, TRANSFORMERS, DISTRIBUTOR PLATES, TURBINE PUMPS, CRANES, WINCHES, AND VARIOUS KINDS OF HYDRAULIC WHEELS.

Also Agents for Hoden Oil, Used for Transformers.